EDILTECO group

POLITERM® BLU

superlight aggregates for the preparation of
lightweight thermal insulating mortars for screeds

THERMAL

Insulation & Chemicals Division

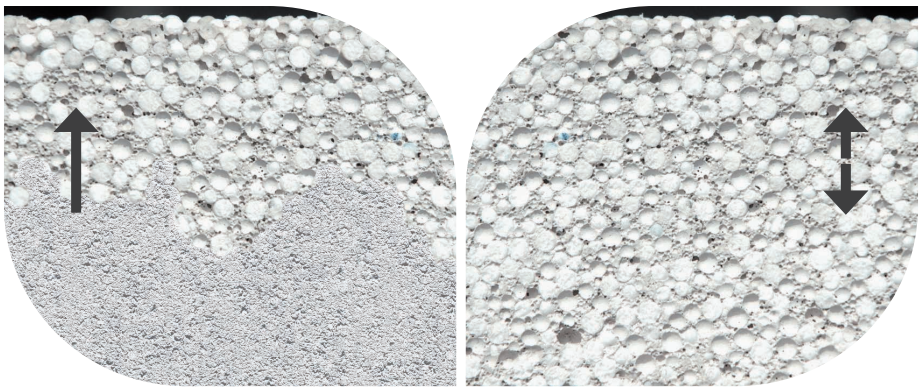
APPLICATION MANUAL . POLITERM® BLU RANGE

INDEX

THE TECHNOLOGY FOR THE USE OF AGGREGATES IN LIGHTWEIGHT MORTARS

The importance of the EPS beads mixed with Edilteco patented additive.
E.I.A. is the special additive that when applied onto the EPS virgin beads guarantees a perfect mixing of the EPS beads with cement and water. EPS is the best insulating material with the most cost effective performance. Due to the different specific weights it is almost impossible to mix EPS beads with cement since they tend to separate.
E.I.A. overcomes this problem: the mortar obtained is perfectly homogeneous and with high thermal insulating performances:

- Perfect mixing with water and binders;
- homogeneous distribution of the EPS beads in the mixing;
- perfect pumping capacity;
- elimination of beads flotation phenomenon.



MIXTURE WITH POLYSTYRENE NON-CORRECTLY MIXED
Non homogeneous distribution into the mix (bead flotation phenomenon).

MIXTURE WITH POLITERM® BLU
Homogeneous distribution into the mix.

APPLICATION MANUAL . POLITERM® BLU RANGE

The preparation of this manual is a complex operation requiring many checks of the text, images and graphics. Experience teaches us that it is almost impossible to publish a manual flawlessly. Should you notice any errors during the reading of this manual, please inform us promptly. What is reported in the manual has to be intended as merely indicative and none guarantee can be given if not directly taken from certification and belonging to the workmanlike. All indication given are not binding for legal purposes. Recommendations as to methods, use of materials and construction details are given as a service to contractors and designers, on the basis of Edilteco's experience with the use of Politerm® Blu. Any drawings are meant only to illustrate the various possibilities of applications and should not be taken as the basis for design. Since Edilteco as a material supplier, exercises no control over the installation of Politerm® Blu, no responsibility is accepted for such drawings or recommendations. Edilteco's legal obligations in respect of any sale of Politerm® Blu shall be determined solely by the terms of the respective sales contract. All data is derived from laboratory tests and is subject to change according to environmental conditions and work practices. The user is required to check the suitability of the product in accordance with the specific application, undertaking all liability implicit in and deriving from use of the product itself; moreover the operator has to respect all application instructions and safety advice, respecting all norms attributable to the good work practice. Edilteco has the right to change at its sole discretion and without any advice the content of the present manual. The present manual cancels and replaces any other previous version of any application manual of Politerm® Blu, or any other Technical documents previously issued. The dissemination of this manual in any way, totally or even partially, is strictly forbidden without the authorization of Edilteco S.p.A.

INTERMEDIATE LAYER

FOR LIGHTWEIGHT SCREEDS

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Intermediate Layer method: for the application of a lightweight EPS screed (like Isolcap Max 800 or La Chape XXs®).**

APPLICATION FIELDS: slabs between floors, garrets, flat terraces (with or without falls), vault and volumes filling, corrugated sheet mezzanines, etc.

MINIMUM APPLICATION THICKNESS: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):

- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
- For thicknesses between 10 mm and 30 mm: add to the mix of cement and Politerm® Blu about 200 kg/m^3 of aggregate with a maximum grain size of 0,6 mm (mixed manually) and include a galvanized metal mesh.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: super-light aggregate in virgin expanded polystyrene beads with constant particle size (beads ∅ 3 - 6 mm or ∅ 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 200 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration.
The lightweight screed obtained, is suitable for the following application of lightweight screed (like Isolcap Max 800 or La Chape XXs®). Edilteco technology suggests also the new high insulating liquid screed with a density of only 130 kg/m^3. It can be obtained mixing Politerm® Blu Fein at 110 kg/m^3 of cement.

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	110	200	250	300	350
Density after 28 days kg/m^3	approx. 130 [a]	approx. 215	approx. 265	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,043	0,065	0,067	0,080	0,103
Compressive strength N/mm^2	0,528	0,69	0,83	1,61	1,69
Flexural strength N/mm^2	0,12	0,37	0,46	0,95	0,59
Cohesion kPa	n.a.	82,62	n.a.	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	n.a.	57	n.a.	62	n.a.
Cold-sealed membrane rupture N/50 mm	n.a.	35	n.a.	47	n.a.
Elasticity module N/mm^2	n.a.	235,3	n.a.	551,1	n.a.
Permeability to water vapour μ	5,1	5,9	6,9	7,2	9,2
Specific heat J/kgK	1000 [b]	1000 [b]	1000 [b]	1000 [b]	1000 [b]
Shrinkage (NBN) mm/m	n.a.	0,427	n.a.	0,352	0,270
Acoustic performance ΔL_w	n.a.	14 dB [c]	14 dB [c]	26 dB [d]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.	61 dB thick. 11 cm	n.a.	n.a.
Fire reactivity class	n.a.	A2-s1,d0			

[a] only with **Politerm® Blu Fein** / [b] 1000 J/kgK = 0,24 kcal/kgK / [c] Value obtained in lab. with 5 cm of Politerm® Blu + 5 cm of screed / [d] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

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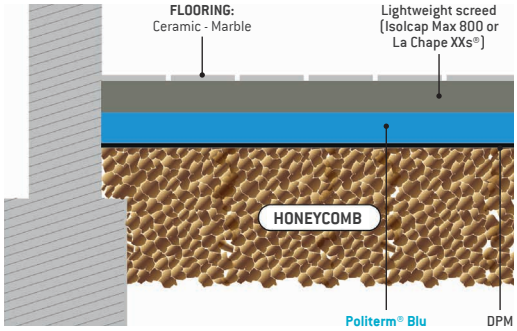
Taking into consideration that in this section, Politerm® Blu is used as an intermediate layer receiving a cementitious heavy screed, Politerm® Blu screed can be directly applied on concrete slabs, concrete beam decks, compacted ground floor, loose stone foundation, etc., even in presence of a correctly applied DPM (Damp Proof Membrane), without using a galvanized metal mesh. If the receiving surface is made of insulating boards, bituminous and/or synthetic waterproofing layer, tiled floors, or corrugated steel sheet, etc., before applying Politerm® Blu screed it is recommended to lay a galvanized metal mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm).

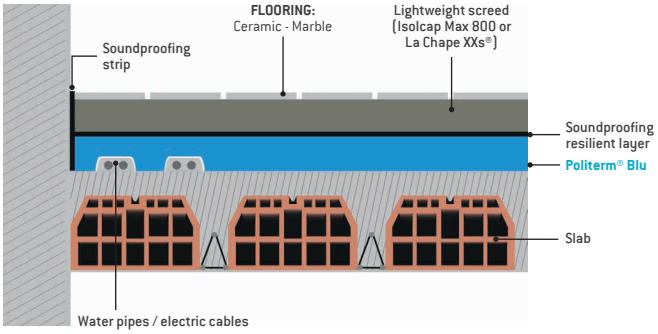
WARNINGS AND PRECAUTIONS:

- **Very absorbent surfaces (hollow flooring blocks, hollow tiles, etc.):** clean properly the laying surface from dust. Apply a grout, promoting the adhesion and reducing the absorption, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.
- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- **Protect Politerm® screed in case of highly trafficked surface.**
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

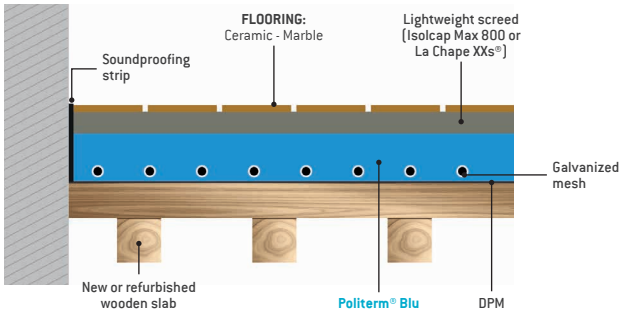
GROUND FLOOR: LIGHTWEIGHT THERMAL INSULATING SCREED



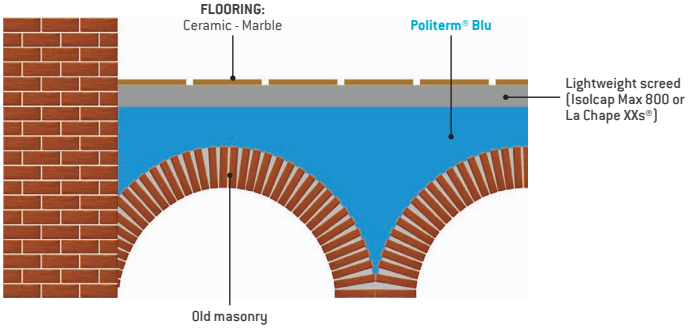
BETWEEN FLOORS: INTERMEDIATE LIGHTWEIGHT AND THERMAL INSULATING LEVELLING LAYER



WOODEN SLAB: INSULATING LAYER



SPECIAL APPLICATION: LIGHTWEIGHT THERMAL INSULATING LEVELLING-FILLING OF VAULTED SLABS



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INTERMEDIATE LAYER

FOR SAND-CEMENT SCREEDS AND BASE SCREEDS

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Intermediate Layer method: to be applied under sand-cement or sand-anhydrite screed.**

APPLICATION FIELDS: slabs between floors, garrets, flat terraces (with or without falls), vault and volumes filling, corrugated sheet mezzanines, etc.

MINIMUM APPLICATION THICKNESS: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):

- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
- For thicknesses between 10 mm and 30 mm: add to the mix of cement and Politerm® Blu about 200 kg/m^3 of aggregate with a maximum grain size of 0,6 mm (mixed manually) and include a galvanized metal mesh.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: super-light aggregate in virgin expanded polystyrene beads with constant particle size (beads Ø 3 - 6 mm or Ø 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 200 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration.
The lightweight screed obtained, is suitable for the following application of sand-cement or sand-anhydrite screeds. Edilteco technology suggests also the new high insulating liquid screed with a density of only 130 kg/m^3. It can be obtained mixing Politerm® Blu Fein at 110 kg/m^3 of cement.

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	110	200	250	300	350
Density after 28 days kg/m^3	approx. 130 [a]	approx. 215	approx. 265	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,043	0,065	0,067	0,080	0,103
Compressive strength N/mm^2	0,528	0,69	0,83	1,61	1,69
Flexural strength N/mm^2	0,12	0,37	0,46	0,95	0,59
Cohesion kPa	n.a.	82,62	n.a.	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	n.a.	57	n.a.	62	n.a.
Cold-sealed membrane rupture N/50 mm	n.a.	35	n.a.	47	n.a.
Elasticity module N/mm^2	n.a.	235,3	n.a.	551,1	n.a.
Permeability to water vapour μ	5,1	5,9	6,9	7,2	9,2
Specific heat J/kgK	1000 [b]	1000 [b]	1000 [b]	1000 [b]	1000 [b]
Shrinkage (NBN) mm/m	n.a.	0,427	n.a.	0,352	0,270
Acoustic performance ΔL_w	n.a.	14 dB [c]	14 dB [c]	26 dB [d]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.	61 dB thick. 11 cm	n.a.	n.a.
Fire reactivity class	n.a.	A2-s1,d0			

[a] only with **Politerm® Blu Fein** / [b] 1000 J/kgK = 0,24 kcal/kgK / [c] Value obtained in lab. with 5 cm of Politerm® Blu + 5 cm of screed / [d] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

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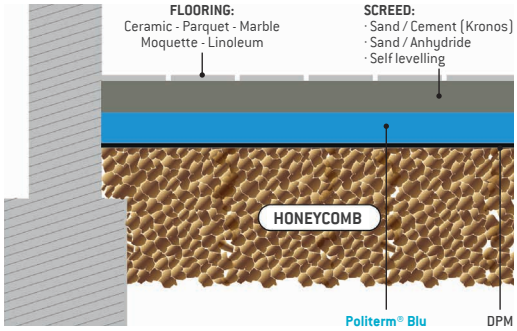
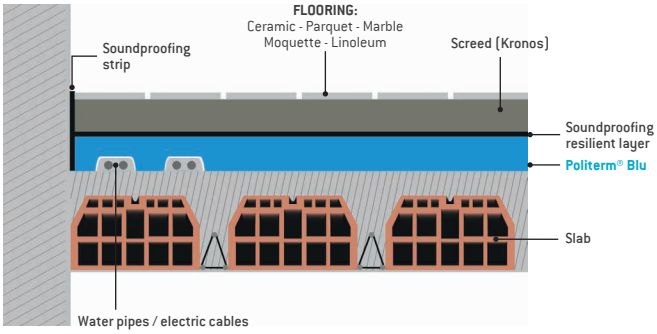
WARNINGS AND PRECAUTIONS:

- **Very absorbent surfaces (hollow flooring blocks, hollow tiles, etc.):** clean properly the laying surface from dust. Apply a grout, promoting the adhesion and reducing the absorption, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.
- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- **Protect Politerm® screed in case of highly trafficked surface.**
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

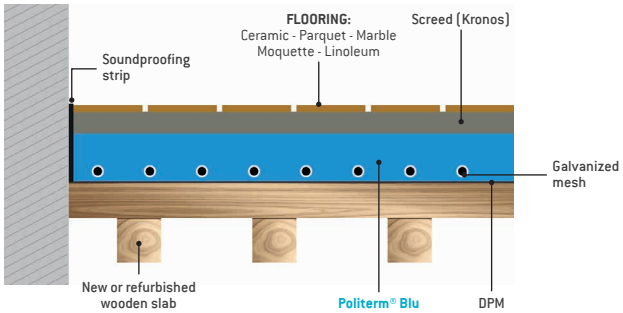
GROUND FLOOR: LIGHTWEIGHT THERMAL INSULATING SCREED



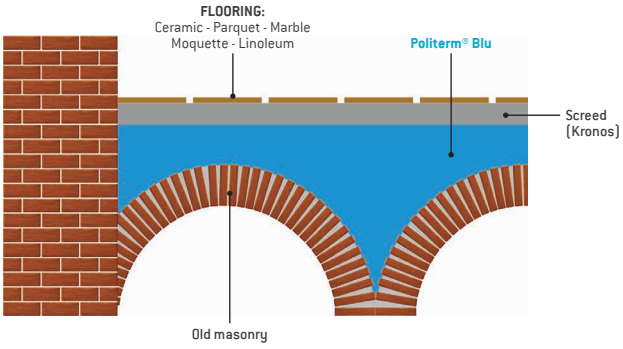
BETWEEN FLOORS: INTERMEDIATE LIGHTWEIGHT AND THERMAL INSULATING LEVELLING LAYER



WOODEN SLAB: INSULATING LAYER



SPECIAL APPLICATION: LIGHTWEIGHT THERMAL INSULATING LEVELLING-FILLING OF VAULTED SLABS



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INTERMEDIATE LAYER

FOR SCREEDS AND SELF-LEVELLING SCREEDS AND UNDERFLOOR HEATING SYSTEMS

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Intermediate Layer method for self-levelling mortars: suitable to receive the laying of a self-levelling screed.**

APPLICATION FIELDS: slabs between floors, ground floors, screeds for underfloor heating systems (with or without panels), garrets, flat terraces (with or without falls), vault and volumes filling, corrugated sheet mezzanines, etc.

POLITERM® BLU USED AS BASE SCREED FOR SELF-LEVELLING SCREEDS:

1. The specific characteristics (very low water absorption) of Politerm® Blu mortars **make unnecessary** the use of damp proof membrane (DPM), if the mortar is correctly mixed and laid according to the manufacturer's instructions and after surface treatment with **Edilstik** "fresh on fresh". The use of a damp proof membrane (DPM) is necessary in all the possible cases of rising damp. In this case, the DPM may be placed under the Politerm® Blu base screed or between the base screed and the self-levelling screed.
2. In case of particular static situation (e.g. slabs), it is necessary to install a separating layer between Politerm® Blu base screed and the self-levelling screed.
3. The thickness of the self-levelling screed, placed on Politerm® Blu screed, should be realized in accordance with the recommendations of the manufacturers of the self-levelling screed.

POLITERM® BLU USED AS BASE SCREED FOR UNDERFLOOR HEATING:

1. The specific characteristics (very low water absorption) of Politerm® Blu mortars **make unnecessary** the use of damp proof membrane (DPM), if the mortar is correctly mixed and laid according to the manufacturer's instructions.
2. Installation of ufh piping system on rigid insulation panels: follow the installation instructions of the supplier of the heating system.
3. Installation of ufh piping system without panel: the certified thermal insulating characteristics of Politerm® Blu mortars allow to make thermal calculation and avoid the use of further unnecessary insulating panels. In this case, lay a galvanized mesh on Politerm® Blu base screed, where fixing ufh.

MINIMUM APPLICATION THICKNESS: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):

- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
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FORMULA (Absolute technical characteristics)	110	200	250	300	350
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Impact noise insulation $L'_{nT,W}$	n.a.	n.a.	61 dB thick. 11 cm	n.a.	n.a.
Fire reactivity class	n.a.	A2-s1,d0			

([a]) only with **Politerm® Blu Fein** / ([b]) 1000 J/kgK = 0,24 kcal/kgK / ([c]) Value obtained in lab. with 5 cm of Politerm® Blu + 5 cm of screed / ([d]) Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

WARNINGS AND PRECAUTIONS:

- **Very absorbent surfaces (hollow flooring blocks, hollow tiles, etc.):** clean properly the laying surface from dust. Apply a grout, promoting the adhesion and reducing the absorption, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.
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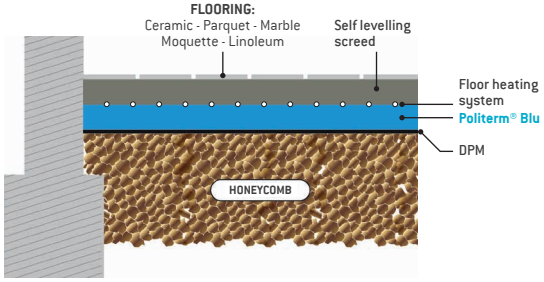
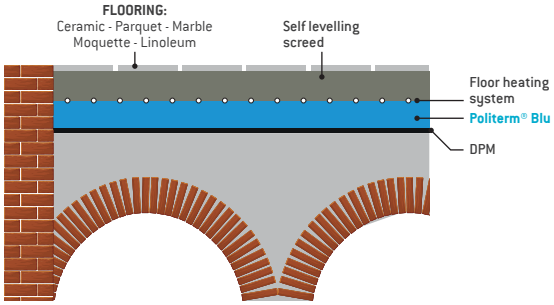
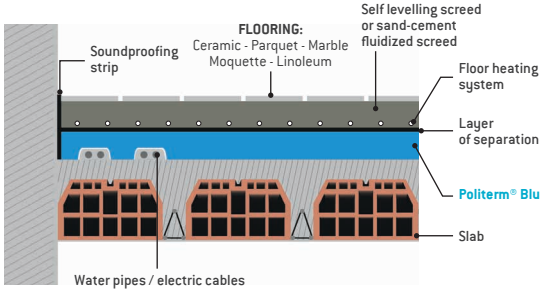
GROUND FLOOR: THERMAL INSULATING LEVELLING BASE SCREED FOR SELF-LEVELLING SCREEDS



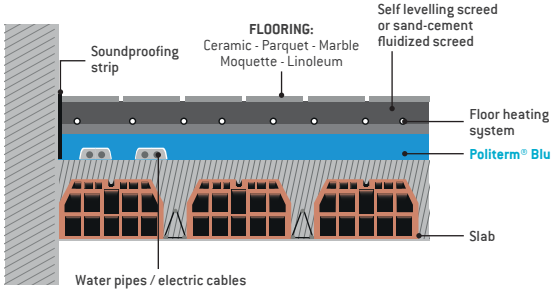
BETWEEN FLOORS: LIGHTWEIGHT FILLING LAYER FOR UNDERFLOOR HEATING SYSTEM OF VAULTED SLABS



BETWEEN FLOORS: LIGHTWEIGHT FILLING LAYER FOR UNDERFLOOR HEATING SYSTEM



BETWEEN FLOORS: LIGHTWEIGHT FILLING LAYER FOR UNDERFLOOR HEATING SYSTEM



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ROOFING

FOR PITCHED, FLAT (WITH OR WITHOUT FALLS) AND VAULTED ROOFS
which must directly receive a sand-cement screed and a following waterproofing layer

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Pumping on Roofing method: suitable for receiving the application of a sand-cement screed, and bituminous (hot or cold) and/or synthetic waterproofing membrane (prefab or liquid).**

APPLICATION FIELDS: pitched, vaulted and flat roofs and non-walkable terraces (with or without falls), corrugated sheet roofs, etc.

MINIMUM APPLICATION THICKNESS ON ABSORBENT SURFACES: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):
- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
- For thicknesses between 10 mm and 30 mm: add to the mix of cement and Politerm® Blu about 200 kg/m^3 of aggregate with a maximum grain size of 0,6 mm (mixed manually) and include a galvanized metal mesh.

In case of falls, the minimum thickness must not be less than 50 mm.

VERY ABSORBENT SURFACES (HOLLOW FLOORING BLOCKS, HOLLOW TILES, ETC.): clean properly the laying surface from dust. Apply a grout, promoting the adhesion and reducing the absorption, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM APPLICATION THICKNESS ON NON-ABSORBENT SURFACES: 50 mm with galvanized mesh (minimum size: wire ∅ 3 mm - mesh 50 x 50 mm) at a due distance from the laying surface. ***Contact Edilteco Technical Department for any further information.***

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: superlight aggregate in virgin expanded polystyrene beads with constant particle size (beads ∅ 3 - 6 mm or ∅ 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 200 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration. The lightweight screed obtained is suitable to receive the laying of a sand-cement screed or sand-anhydrite screed. Edilteco's technology suggests the use of the new fluid insulating screed at 130 kg/m^3 density, mixing Politerm® Blu Fein with 110 kg/m^3 of cement.

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	110	200	250	300	350
Density after 28 days kg/m^3	approx. 130 [a]	approx. 215	approx. 265	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,043	0,065	0,067	0,080	0,103
Compressive strength N/mm^2	0,528	0,69	0,83	1,61	1,69
Flexural strength N/mm^2	0,12	0,37	0,46	0,95	0,59
Cohesion kPa	n.a.	82,62	n.a.	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	n.a.	57	n.a.	62	n.a.
Cold-sealed membrane rupture N/50 mm	n.a.	35	n.a.	47	n.a.
Elasticity module N/mm^2	n.a.	235,3	n.a.	551,1	n.a.
Permeability to water vapour μ	5,1	5,9	6,9	7,2	9,2
Specific heat J/kgK	1000 [b]	1000 [b]	1000 [b]	1000 [b]	1000 [b]
Shrinkage (NBN) mm/m	n.a.	0,427	n.a.	0,352	0,270
Acoustic performance ΔL_w	n.a.	14 dB [c]	14 dB [c]	26 dB [d]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.	61 dB thick. 11 cm	n.a.	n.a.
Fire reactivity class	n.a.	A2-s1,d0			

[a] only with **Politerm® Blu Fein** / [b] 1000 J/kgK = 0,24 kcal/kgK / [c] Value obtained in lab. with 5 cm of Politerm® Blu + 5 cm of screed / [d] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

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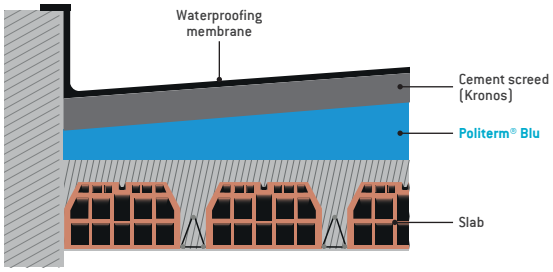
Politerm® Blu screed can be applied without using a galvanized metal mesh only on concrete slabs, concrete beam decks, compacted ground floor loose stone foundation, etc. If the receiving surface is made of insulating boards, a bituminous and/or synthetic waterproofing layer, tiled floors, corrugated steel sheet or DPM, etc., lay a galvanized metal mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm) before applying Politerm® Blu screed.

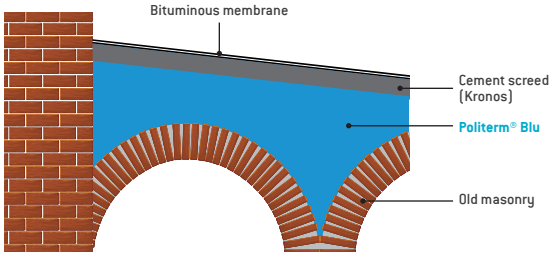
WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- It is possible to apply Politerm® Blu screed on pitched or vaulted roofs only for falls between 30% and 40% (according to the laying surface).
- Politerm® Blu screed must be protected from rain for the first 48 hours from the application.
- The waterproofing membranes on Politerm® Blu screed can be applied after 7 days in normal weather conditions. This time is indicative and according to the thickness and weather conditions. The application of the waterproofing membrane must follow the instructions of the membrane manufacturer.
- The use of liquid membranes on Politerm® Blu screeds depends on the approval of the supplier/manufacturer of the membrane. Do not use solvent-based liquid membrane on Politerm® Blu screeds.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

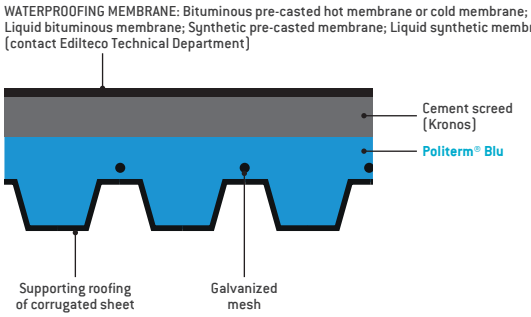
FLAT ROOF: SINGLE LAYER LIGHTWEIGHT THERMAL INSULATING SLOPING SCREED



SPECIAL APPLICATION: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING AND FILLING OF VAULTED ROOFS



ROOFING: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING ON CORRUGATED SHEET



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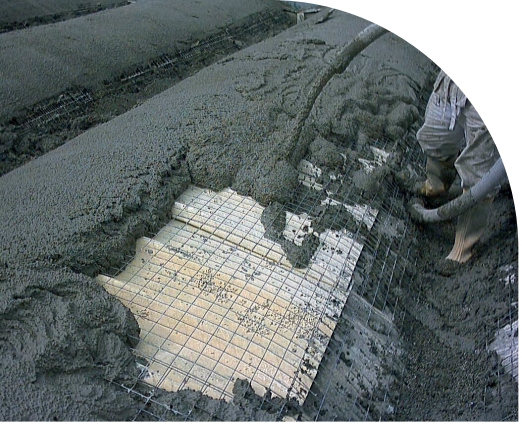

ROOFING

FOR PITCHED, FLAT (WITH OR WITHOUT FALLS) AND VAULTED ROOFS
for the following application of the waterproof membrane

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Pumping on Roofing method: suitable for receiving the application of bituminous (hot or cold) and/or synthetic waterproofing membrane (prefab or liquid).**

APPLICATION FIELDS: pitched, vaulted and flat roofs and non-walkable terraces (with or without falls), corrugated sheet roofs, etc.

MINIMUM APPLICATION THICKNESS ON ABSORBENT SURFACES: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):
- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
- For thicknesses between 10 mm and 30 mm: add to the mix of cement and Politerm® Blu about 200 kg/m^3 of aggregate with a maximum grain size of 0,6 mm (mixed manually) and include a galvanized metal mesh.

In case of falls, the minimum thickness must not be less than 50 mm.

VERY ABSORBENT SURFACES (HOLLOW FLOORING BLOCKS, HOLLOW TILES, ETC.): clean properly the laying surface from dust. Apply a grout, promoting the adhesion and reducing the absorption, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM APPLICATION THICKNESS ON NON-ABSORBENT SURFACES: 50 mm with galvanized mesh (minimum size: wire ∅ 3 mm - mesh 50 x 50 mm) at a due distance from the laying surface. ***Contact Edilteco Technical Department for any further information.***

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: superlight aggregate in virgin expanded polystyrene beads with constant particle size (beads ∅ 3 - 6 mm or ∅ 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 200 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration. The lightweight screed obtained is suitable to receive the laying of the waterproofing membrane.

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	200	250	300	350
Density after 28 days kg/m^3	approx. 215	approx. 265	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,065	0,067	0,080	0,103
Compressive strength N/mm^2	0,69	0,83	1,61	1,69
Flexural strength N/mm^2	0,37	0,46	0,95	0,59
Cohesion kPa	82,62	n.a.	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	57	n.a.	62	n.a.
Cold-sealed membrane rupture N/50 mm	35	n.a.	47	n.a.
Elasticity module N/mm^2	235,3	n.a.	551,1	n.a.
Permeability to water vapour μ	5,9	6,9	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,427	n.a.	0,352	0,270
Acoustic performance ΔL_w	14 dB [b]	14 dB [b]	26 dB [c]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	61 dB thick. 11 cm	n.a.	n.a.
Fire reactivity class	A2-s1,d0			

[a] 1000 J/kgK = 0,24 kcal/kgK / [b] Value obtained in lab. with 5 cm of Politerm® Blu + 5 cm of screed / [c] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

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Politerm® Blu screed can be applied without using a galvanized metal mesh only on concrete slabs, concrete beam decks, compacted ground floor loose stone foundation, etc. If the receiving surface is made of insulating boards, a bituminous and/or synthetic waterproofing layer, tiled floors, corrugated steel sheet or DPM, etc., lay a galvanized metal mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm) before applying Politerm® Blu screed.

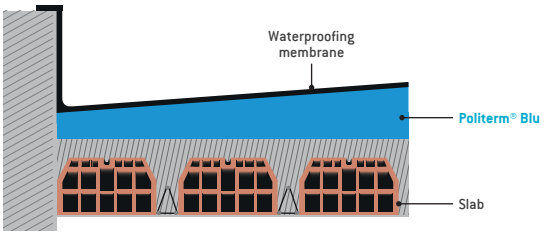
Before applying the waterproofing membrane, proceed with the treatment of the surface using one of the following methods:

a. Abrade the surface using an electric sander fitted with an abrasive disk and dust extraction;
   or
b. Burn the EPS beads on the surface. This method must to be executed not before than 7 days from the screed's application.

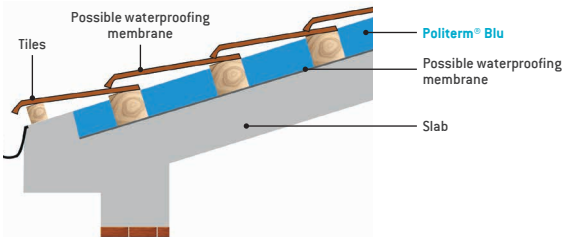
WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- It is possible to apply Politerm® Blu screed on pitched or vaulted roofs only for falls between 30% and 40% (according to the laying surface).
- Politerm® Blu screed must be protected from rain for the first 48 hours from the application.
- The waterproofing membranes on Politerm® Blu screed can be applied after 7 days in normal weather conditions. This time is indicative and according to the thickness and weather conditions. The application of the waterproofing membrane must follow the instructions of the membrane manufacturer.
- The use of liquid membranes on Politerm® Blu screeds depends on the approval of the supplier/manufacturer of the membrane. Do not use solvent-based liquid membrane on Politerm® Blu screeds.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

FLAT ROOF: SLOPING LIGHTWEIGHT AND THERMAL INSULATING SINGLE-LAYER SCREED

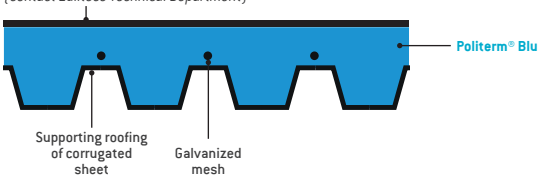


PITCHED ROOF: THERMAL INSULATING LAYER

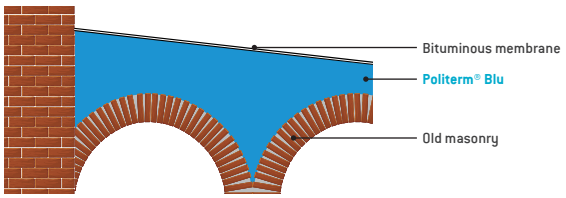


ROOFING: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING ON CORRUGATED SHEET

WATERPROOFING MEMBRANE: Bituminous pre-casted hot membrane or cold membrane; Liquid bituminous membrane; Synthetic pre-casted membrane; Liquid synthetic membrane *(contact Edilteco Technical Department)*



SPECIAL APPLICATION: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING AND FILLING OF VAULTED ROOFS



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ASBESTOS FIBRE CEMENT ENCAPSULATION

FOR THE RECOVERY OF ROOFING MADE OF ASBESTOS CEMENT BOARDS, LAID ON CONTINUOUS SLABS

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Pumping on Roofing method by encapsulation of asbestos fibre cement boards, to avoid the dispersion in the air of the asbestos cement fibres. Suitable for receiving the laying of bituminous (hot or cold) and/or synthetic waterproofing membrane (prefab or liquid).**

Using this method the encapsulation can be done without using the traditional hazardous, expensive and complex washing operation, as well as the scraping and fixing of cracks and crazing. Furthermore, using the Politerm® Blu encapsulation system there is no need to remove, cut or drill the asbestos fibre cement boards thus avoiding the creation of hazardous dust.

APPLICATION FIELDS: pitched, vaulted and projecting roofs.

MINIMUM APPLICATION THICKNESS: 50 mm above the extrados of the upper edge of the asbestos cement boards.
The average thickness obtained will be approximately 80 mm (according to the type of board).

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: super-light aggregate in virgin expanded polystyrene beads with constant particle size (beads Ø 3 - 6 mm or Ø 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 200 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration. The lightweight screed obtained is suitable to receive the laying of a bituminous (hot or cold) and/or synthetic waterproofing membrane (prefab or liquid).

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	200	250	300	350
Density after 28 days kg/m^3	approx. 215	approx. 265	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,065	0,067	0,080	0,103
Compressive strength N/mm^2	0,69	0,83	1,61	1,69
Flexural strength N/mm^2	0,37	0,46	0,95	0,59
Cohesion kPa	82,62	n.a.	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	57	n.a.	62	n.a.
Cold-sealed membrane rupture N/50 mm	35	n.a.	47	n.a.
Elasticity module N/mm^2	235,3	n.a.	551,1	n.a.
Permeability to water vapour μ	5,9	6,9	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,427	n.a.	0,352	0,270
Acoustic performance ΔL_w	14 dB [b]	14 dB [b]	26 dB [c]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	61 dB thick. 11 cm	n.a.	n.a.
Fire reactivity class	A2-s1,d0			

[a] 1000 J/kgK = 0,24 kcal/kgK / [b] Value obtained in lab. with 5 cm of Politerm® Blu + 5 cm of screed / [c] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

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In accordance with the current standards, before proceeding with encapsulation, it is mandatory the temporary inertization of the asbestos cement boards by spraying the specific latex **Edilstik F.C.A.**, diluted in clean water (ratio 1:2).

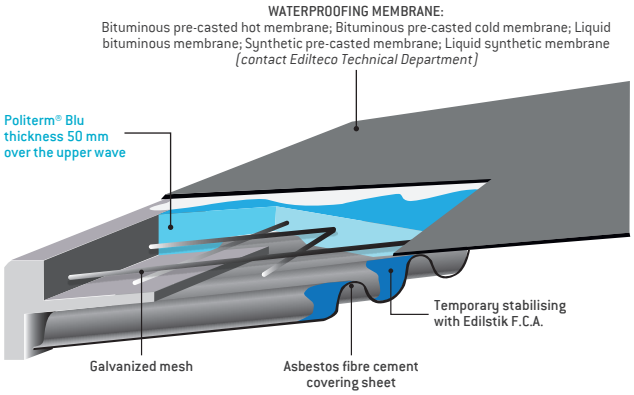
Before laying Politerm® Blu screed, lay a galvanized mesh (minimum dimension: wire ∅ 2 mm - diameter 50 x 50 mm) or electro-welded mesh (max. ∅ 5 mm), properly bound and spaced from the laying surface. This operation makes the walking on roof easier in case of sloping slabs.

Before applying the waterproofing membrane, proceed with the treatment of the surface using one of the following methods:

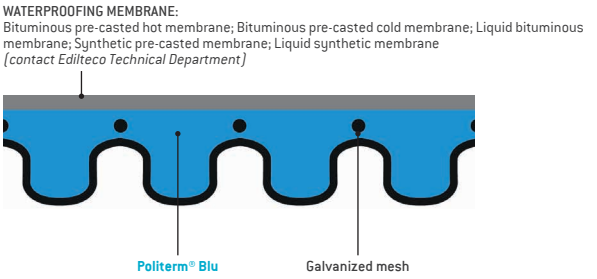
a. **Abrade the surface using an electric sander fitted with an abrasive disk and dust extraction;**
   or
b. **Burn the EPS beads on the surface. This method must to be executed not before than 7 days from the screed's application.**

WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- The encapsulation and recovery of asbestos cement boards must always be done according to the current legislation.
- The encapsulation with Politerm® Blu screed on roofing, composed of asbestos cement boards on metal structure or on any type of exposed structure, is possible only after the check and the confirmation, by an approved technician, of the safety conditions (scaffolding, protective net, etc.).
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- It is possible to apply Politerm® Blu screed on pitched or vaulted roofs only for falls between 30% and 40% (according to the laying surface).
- Politerm® Blu screed must be protected from rain for the first 48 hours from the application.
- The waterproofing membranes on Politerm® Blu screed can be applied after 7 days in normal weather conditions. This time is indicative and according to the thickness and weather conditions. The application of the waterproofing membrane must follow the instructions of the membrane manufacturer.
- In order to guarantee a proper dispersion of Politerm® Blu screed's humidity and avoid the detachment of the waterproofing membrane, it is recommended the laying of enhancers.
- The use of liquid membranes on Politerm® Blu screeds depends on the approval of the supplier/manufacturer of the membrane. Do not use solvent-based liquid membrane on Politerm® Blu screeds.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***



SPECIAL APPLICATION: ENCAPSULATION OF ROOFING MADE OF ASBESTOS FIBRE CEMENT



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PIANO ZERO SINGLE LAYER

FOR DIRECT APPLICATION WITH GLUE OF CERAMIC TILES, GRES, CLINKER, PRE-POLISHED MARBLE (FOR INDOOR USE)

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Piano Zero method: suitable for the direct application of ceramic tiles, gres, clinker, pre-polished marble.**

APPLICATION FIELDS: slabs between floors, ground floors, flat terraces (with or without falls), filling of vaults, mezzanines on corrugated sheet, etc.

MINIMUM THICKNESS OF POLITERM® SCREED ON ABSORBENT SURFACES: 50 mm on slab and/or between the external point of the installation pipes and the internal point of the final flooring. ***In case of lower thickness contact Edilteco Technical Department.***

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF POLITERM® SCREED ON NON ABSORBENT SURFACES: the minimum thickness of 50 mm is suitable only for the following surfaces:
Existing ceramic, gres, marble flooring, waterproofing bituminous membranes, after the following specific treatment:
a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Politerm® Blu or Politerm® Blu Fein at 300 kg/m^3 density.

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **100 mm.** Before laying Politerm® Blu or Politerm® Blu Fein mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for densities from 800 kg/m^3, the minimum thickness is **50 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support.
Contact Edilteco Technical Department for any further information.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: super-light aggregate in virgin expanded polystyrene beads with constant particle size (beads ∅ 3 - 6 mm or ∅ 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 300 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration.

Possible application at the applicator's discretion: before the mixing and application of the Politerm® Blu screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions. The distance between the profiles must not be higher than 2,50 m. ***Contact Edilteco Technical Department to evaluate other solutions.*** Then, lay Politerm® Blu our Politerm® Blu Fein mortar by straightedge on **Piano Zero** profiles.

After 72 hours from the application of the lightweight mortar, proceed as follows:
1. Surface abrasion by an electrical sander with abrasive disc, in order to eliminate any imperfection.
2. Finish the perimeter areas, where the sander can't reach, with a metal scraping tool.
3. Properly clean the surface, sucking dust and residual parts.
4. Check the level points using a ruler 1 meter long.
5. To the discretion of the applicator: burn the beads on the surface using a torch for waterproofing membrane. To do not before than 7 days from the screed application.

In case of aesthetic needs or screed protection, it is possible to lay a low thickness smoothing mortar, using the self-levelling mortar **Ariete Liv**, after treatment with **Edilstik** latex, laid "fresh on fresh". The lightweight screed obtained can receive the direct application of ceramic, gres, clinker and pre-polished marble flooring.

EDILTECO group

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The screed obtained will have the following characteristics:

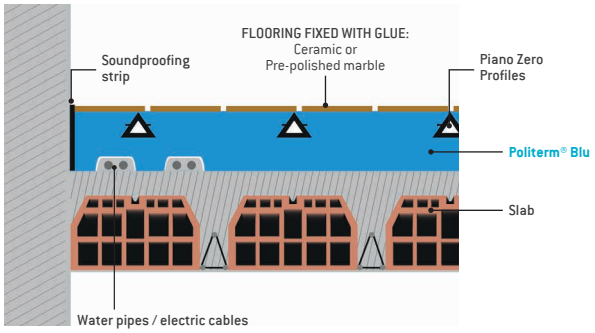
FORMULA (Absolute technical characteristics)	300	350
Density after 28 days kg/m^3	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,080	0,103
Compressive strength N/mm^2	1,61	1,69
Flexural strength N/mm^2	0,95	0,59
Cohesion kPa	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	62	n.a.
Cold-sealed membrane rupture N/50 mm	47	n.a.
Elasticity module N/mm^2	551,1	n.a.
Permeability to water vapour μ	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,352	0,270
Acoustic performance ΔL_w	26 dB [b]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.
Fire reactivity class	A2-s1,d0	

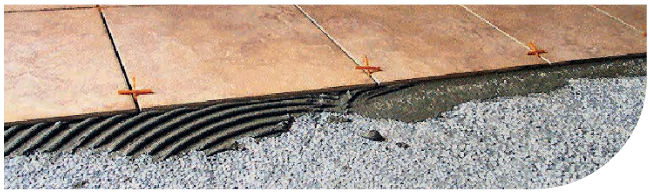
[a] 1000 J/kgK = 0,24 kcal/kgK / [b] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

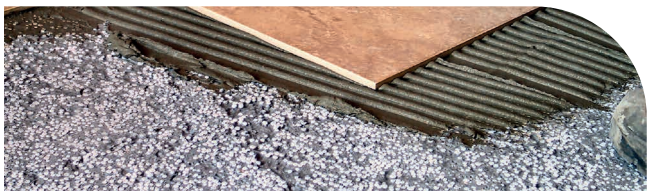
WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- For the realization of lightweight single layer screeds, laid with **Piano Zero** method, the possible application of detaching or acoustic insulating mats must be done the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- The direct application of the final flooring on Politerm® Blu base screed through **Piano Zero** method, without protective smoothing, demands a higher consumption of glue than traditional applications, approx. 20% more, because the support has the empty cells of the beads previously removed. This characteristic improves the adhesion between the surface and the glue.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Laying of the plasterboard partitions directly on Politerm® Blu screeds: previously smooth the area (thickness 2 mm) where applying the plasterboard rails (their width + 50 mm per side). Then, apply the rails with a specific double-sided tape.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex Edilstik "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

BETWEEN FLOORS: LIGHTWEIGHT THERMAL INSULATING SINGLE LAYER FOR CERAMIC FLOORING







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PIANO ZERO
SINGLE LAYER

FOR DIRECT APPLICATION WITH GLUE OF CERAMIC TILES, GRES, CLINKER, PRE-POLISHED MARBLE (FOR OUTDOOR USE)

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Piano Zero method: suitable for the direct application of ceramic tiles, gres, clinker and pre-polished marble.**

APPLICATION FIELDS: flat terraces (with or without falls).

MINIMUM THICKNESS OF POLITERM® SCREED ON ABSORBENT SURFACES: 50 mm on slab and/or between the external point of the installation pipes and the internal point of the final flooring. ***In case of lower thickness contact Edilteco Technical Department.***

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF POLITERM® SCREED ON NON ABSORBENT SURFACES: the minimum thickness of **50 mm** is suitable only for the following surfaces:

1. ***Existing ceramic, gres, marble or similar flooring, after the following specific treatment:***

a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. After drying, lay the lightweight screed Politerm® Blu or Politerm® Blu Fein at 300 kg/m^3 density.

2. ***Bituminous waterproofing membrane on the support, after the following specific treatment:***

a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Politerm® Blu or Politerm® Blu Fein at 300 kg/m^3 density, with the interposition of a galvanized mesh (minimum dimensions: wire ∅ 3 mm - mesh 50 x 50 mm).

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **100 mm.** Before laying Politerm® Blu or Politerm® Blu Fein mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for densities from 800 kg/m^3, the minimum thickness is **50 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support.
Contact Edilteco Technical Department for any further information.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: superlight aggregate in virgin expanded polystyrene beads with constant particle size (beads ∅ 3 - 6 mm or ∅ 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 300 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration.

Possible application at the applicator's discretion: before the mixing and application of the Politerm® Blu screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions). The distance between the profiles must not be higher than 2,50 m. ***Contact Edilteco Technical Department to evaluate other solutions.*** Then, lay Politerm® Blu our Politerm® Blu Fein mortar by straightedge on **Piano Zero** profiles.

After 72 hours from the application of the lightweight mortar, proceed as follows:

1. Surface abrasion by an electrical sander with abrasive disc, in order to eliminate any imperfection.
2. Finish the perimeter areas, where the sander can't reach, with a metal scraping tool.
3. Properly clean the surface, sucking dust and residual parts.
4. Check the level points using a ruler 1 meter long.
5. To the discretion of the applicator: burn the beads on the surface using a torch for waterproofing membrane. To do not before than 7 days from the screed application.

In case of aesthetic needs or screed protection, it is possible to lay a low thickness (2 mm) smoothing mortar, as follows:

6. Preparation and laying of a cement layer, minimum thickness 2 mm, that can be realized with glue/smoothing mortar **Ariete Flex** (see tds) and after treatment with **Edilstik** latex, laid "fresh on fresh". **NB. The application of Ariete Flex can be realized only on a screed having a residual humidity volume not over 2% (measured by carbide tool) and after treatment with Edilstik, laid "fresh on fresh".**

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EXTERNAL SURFACES: before the application of the final flooring, do a suitable waterproofing of the support.

The screed obtained will have the following characteristics:

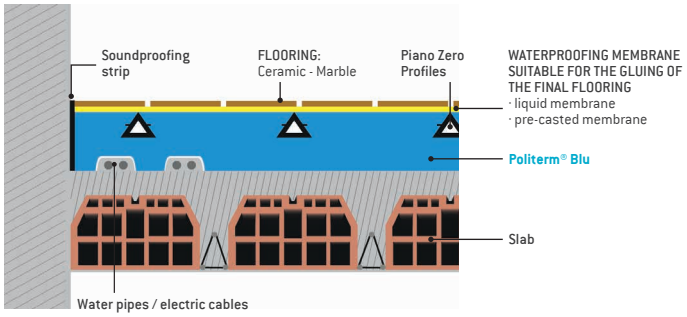
FORMULA (Absolute technical characteristics)	**300**	**350**
Density after 28 days kg/m^3	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,080	0,103
Compressive strength N/mm^2	1,61	1,69
Flexural strength N/mm^2	0,95	0,59
Cohesion kPa	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	62	n.a.
Cold-sealed membrane rupture N/50 mm	47	n.a.
Elasticity module N/mm^2	551,1	n.a.
Permeability to water vapour μ	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,352	0,270
Acoustic performance ΔL_w	26 dB [b]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.
Fire reactivity class	A2-s1,d0	

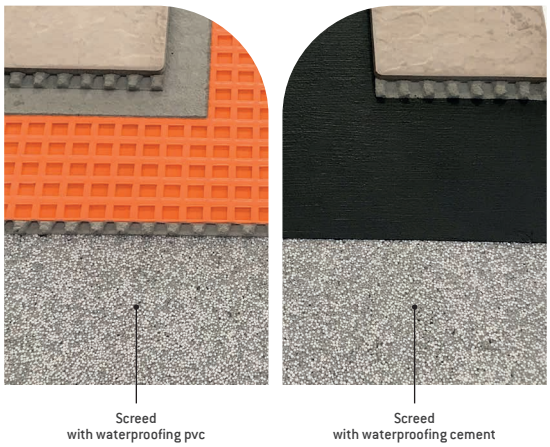
([a]) 1000 J/kgK = 0,24 kcal/kgK / ([b]) Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- For the realization of lightweight single layer screeds, laid with **Piano Zero** method, the possible application of detaching or acoustic insulating mats must be done the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- The direct application of the final flooring on Politerm® Blu base screed through **Piano Zero** method, without protective smoothing, demands a higher consumption of glue than traditional applications, approx. 20% more, because the support has the empty cells of the beads previously removed. This characteristic improves the adhesion between the surface and the glue.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Laying of the plasterboard partitions directly on Politerm® Blu screeds: previously smooth the area (thickness 2 mm) where applying the plasterboard rails (their width + 50 mm per side). Then, apply the rails with a specific double-sided tape.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

TERRACES AND BALCONIES: LIGHTWEIGHT AND THERMAL INSULATING SINGLE LAYER





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PIANO ZERO
SINGLE LAYER

FOR GLUE APPLICATION ON LOW THICKNESS WOODEN PARQUET AND MARBLE, TO BE SMOOTHED ON SITE

APPLICATION: lightweight thermal insulating screed, made using Politerm® Blu beads, supplied in bags of 500 L and/or 200 L laid by skilled installers using the **Piano Zero method to create a flat close tolerance surface suitable for the direct laying and adhesion of parquet or marble, to be smoothed on site.**

APPLICATION FIELDS: slabs between floors, ground floors, flat terraces (with or without falls), filling of vaults, mezzanines on corrugated sheet, etc.

MINIMUM THICKNESS OF POLITERM® SCREED ON ABSORBENT SURFACES: 55 mm including the thickness of the cement layer Ariete Liv (minimum 5,0 mm), on slab and/or between the external point of the installation pipes and the internal point of the final flooring. ***In case of lower thickness contact Edilteco Technical Department.***

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF POLITERM® SCREED ON NON ABSORBENT SURFACES: 55 mm including the thickness of the cement layer Ariete Liv (minimum 5,0 mm), suitable only for the following surfaces:
Existing ceramic, gres, marble or similar flooring, after the following specific treatment:
a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Politerm® Blu or Politerm® Blu Fein at 300 kg/m^3 density.

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **105 mm**. Before laying Politerm® Blu or Politerm® Blu Fein mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for densities from 800 kg/m^3, the minimum thickness is **55 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support.
Contact Edilteco Technical Department for any further information.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: superlight aggregate in virgin expanded polystyrene beads with constant particle size (beads ∅ 3 - 6 mm or ∅ 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 300 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration. Application of the cement layer Ariete Liv.

Possible application at the applicator's discretion: before the mixing and application of the Politerm® Blu screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions). The distance between the profiles must not be higher than 2,50 m. ***Contact Edilteco Technical Department to evaluate other solutions.***

The screed rails must be laid at the final flooring level, after deducing:
1. ***The thickness of the cement layer (minimum 5 mm).***
2. The thickness of the final flooring and relative glue.

Then, lay Politerm® Blu mortar by straightedge on **Piano Zero** profiles.

After 72 hours from the application of the lightweight mortar, proceed as follows:
1. Surface abrasion by an electrical sander with abrasive disc, in order to eliminate any imperfection.
2. Finish the perimeter areas, where the sander can't reach, with a metal scraping tool.
3. Properly clean the surface, sucking dust and residual parts.

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4. Check the level points using a ruler 1 m long.
5. **To the discretion of the applicator:** burn the beads on the surface using a torch for waterproofing membrane. To do not before than 7 days from the screed application.
6. Preparation and laying of a cement layer, minimum thickness 5 mm, that can be realized with the self-levelling mortar **Ariete Liv** (see tds), after treatment with **Edilstik** latex, laid "fresh on fresh". **NB. The application of Ariete Liv can be realized only on a screed having a residual humidity volume not over 2% (measured by carbide tool) and after treatment with Edilstik laid "fresh on fresh".**

The lightweight screed obtained can receive the direct application of parquet or pre-polished marble flooring. The application of the final flooring must be done after the proper curing of the support and the check of its residual humidity.

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	**300**	**350**
Density after 28 days kg/m^3	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,080	0,103
Compressive strength N/mm^2	1,61	1,69
Flexural strength N/mm^2	0,95	0,59
Cohesion kPa	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	62	n.a.
Cold-sealed membrane rupture N/50 mm	47	n.a.
Elasticity module N/mm^2	551,1	n.a.
Permeability to water vapour μ	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,352	0,270
Acoustic performance ΔL_w	26 dB [b]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.
Fire reactivity class	A2-s1,d0	

[a] 1000 J/kgK = 0,24 kcal/kgK / [b] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

WARNINGS AND PRECAUTIONS:

- Politerm® Blu screeds applied by **Piano Zero** method cannot be compared to the traditional sand-cement screeds. The main difference is the lower humidity absorption. For this reason, it is recommended to not use water-based glues for wooden or marble flooring, because the water would not be absorbed by the support, but by the final flooring, causing swelling or deformation.
- In case of application with **Piano Zero** method and acoustic insulating mats, lay the mats at the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- The parquet application requires a series of precautions according to the good practice, for both traditional and Politerm® Blu screeds.

Below some examples of these precautions:

- Proceed to the environment conditioning of the wood, room by room, at least 8 days before the application.
- Protect the rooms from bad weather conditions at least 30 days before the application.
- Turn the heating system on at least 8 days before the parquet application.
- Before to start the application, check if the hygrometric conditions of the base screed are suitable for the parquet flooring (see the paragraph "Measurement of the residual humidity of Politerm® Blu lightweight base screed").
- Lay the flooring using water-free glues.
- Lay the wooden flooring at 8 mm from the wall and any barrier that could cause the wood deformation.
- Any other recommendation traceable to the Good Practice.
- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual. Only in this way Edilteco can guarantee the results and performance claimed.
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

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MEASUREMENT OF THE RESIDUAL HUMIDITY OF POLITERM® BLU LIGHTWEIGHT BASE SCREED

In order to establish the moisture content of the screed, it is necessary to measure the amount of water into a selected sample. This measurement is carried out using the HOECHST method, which use a calcium carbide hygrometer tool, to be used on site. Before proceeding with the measurement, it is necessary to identify the areas where take the samples. For each sample taken, it is necessary to note all the information regarding the environmental conditions of the sample (e.g. the type of tool used, the quantity of material taken, date, temperature and humidity), associated to every specific problem. This meticulous annotation allows to compare applications realized in different moments, by different workers. The HOECHST method for measuring the water content requires the use of a calcium carbide hygrometer, generally supplied as a kit, that includes: a bottle shaped container, closed by a pressure gauge top, a box with vials of calcium carbide, steel pulverizing balls, a set of precision testing scales for weighing the sample and other accessories, such as a brush to clean the container and tools for breaking out the sample from the screed surface.
The procedure is simple: measure the pressure exerted by the gas developed by the reaction between calcium carbide and the water contained in the sample. According to a particular chemical reaction, the calcium carbide ($CaC2$) and the water produce a certain quantity of acetylene ($C2H2$) while developing a certain pressure measured by the pressure gauge in the top of the container. Based on the pressure exerted and the weight of the material it is possible to calculate the percentage of moisture contained in the sample. The tool is easy to use and the measurement obtained is considered reliable.
However, the most critical issue is to carry out the sample carefully. The sample screed must be taken and finely crushed using the mortar supplied. The sample is then weighted using the testing scales supplied, and then inserted into the bottle together with the pulverizing steel balls and the vial of calcium carbide. Shaking the container, closed with the pressure gauge top, the steel balls break the ampoule of calcium carbide. The reaction starts, and it ends when it is possible to read a constant pressure on the pressure gauge (usually after about ten minutes). Since the reaction occurs in a closed environment, as more gas is formed, the higher becomes the pressure measured with the pressure gauge. The reaction of calcium carbide in contact with water produces an explosive mixture of air / acetylene, inside the cylinder. Therefore, all possible sources of ignition should be removed before emptying the cylinder. If possible, the cylinder should be opened outdoor. A psychometric bulb is used as measuring tool of the temperature and the relative humidity of the environment, when the sample has taken and tested. This tool must be placed, laid flat, in the area where you want to determine the aforementioned parameters. The bowl at the base must be filled with distilled water, which has to be in contact with one of the two thermometers (via a sock made of absorbent material). After reading the dry thermometer and then the wet thermometer, calculate the difference between the two measures in order to obtain a value from which, using an appropriate graduated scale, can be determined the relative humidity of the air.

SPECIFICATION FOR SCREED MADE WITH POLITERM® BLU MORTARS

The direct value obtained using the calcium carbide method has to be divided as follows:

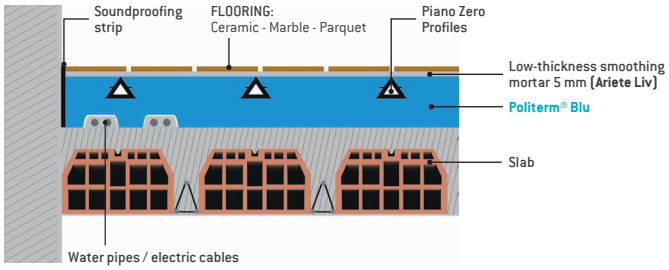
PRODUCT	DIVISION FACTOR DIRECT MEASURE
Density 300 kg/m^3	6,0
Density 500 kg/m^3	4,0
Density 800 kg/m^3	2,0
Density 1200 kg/m^3	1,5

This is because the volumetric mass of the Politerm® Blu is less than the mass of a standard sand-cement screed.

The optimal measure is obtained with a sample of 20 g.

Humidity content measured using the carbide method is valid only if you are using a product made exclusively with virgin polystyrene beads (like Politerm® Blu range). In fact, if the tests are realized on base screed composed of recycled polystyrene granules, the measurement is unreliable because water remains inside granules of the minced polystyrene, distorting the final value.
In case of the following application of other screed (sand-cement, self-levelling screeds, etc.) on top of Politerm® Blu , it is necessary to realize a different measurement, because they are materials with different characteristics.

BETWEEN FLOORS: LIGHTWEIGHT THERMAL INSULATING LAYER WITH LOW-THICKNESS SMOOTHING MORTAR (5 mm)



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PIANO ZERO
SINGLE LAYER

FOR GLUE APPLICATION ON MEDIUM THICKNESS LAYER OF RESILIENT FLOORING (LINOLEUM, PVC, RUBBER, CARPETING, ETC.)

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Piano Zero method: suitable for the direct application of resilient flooring (eg. linoleum, PVC, rubber, carpeting, etc.).**

APPLICATION FIELDS: slabs between floors, ground floors, flat terraces (with or without falls), filling of vaults, mezzanines on corrugated sheet, etc.

MINIMUM THICKNESS OF POLITERM® SCREED ON ABSORBENT SURFACES: 70 mm including the thickness of the cement layer Ariete Liv 30 (minimum 20 mm), on slab and/or between the external point of the installation pipes and the internal point of the final flooring. ***In case of lower thickness contact Edilteco Technical Department.***

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF POLITERM® SCREED ON NON ABSORBENT SURFACES: 70 mm including the thickness of the cement layer Ariete Liv 30 (minimum 20 mm), suitable only for the following surfaces:
Existing ceramic, gres, marble or similar flooring, after the following specific treatment:
a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Politerm® Blu or Politerm® Blu Fein at 300 kg/m^3 density.

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **120 mm**. Before laying Politerm® Blu or Politerm® Blu Fein mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for densities from 800 kg/m^3, the minimum thickness is **70 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. ***Contact Edilteco Technical Department for any further information.***

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: superlight aggregate in virgin expanded polystyrene beads with constant particle size (beads ∅ 3 - 6 mm or ∅ 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the
mix. The mix can be batched with a density of 300 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration. Application of the cement layer Ariete Liv 30.

Possible application at the applicator's discretion: before the mixing and application of the Politerm® Blu screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions). The distance between the profiles must not be higher than 2,50 m. ***Contact Edilteco Technical Department to evaluate other solutions.***

The screed rails must be laid at the final flooring level, after deducing:
1. ***The thickness of the cement layer (minimum 20 mm).***
2. The thickness of the final flooring and relative glue.

The following application of Politerm® Blu mortar requires the laying of the material by straightedge (it is recommended the use of a cutting float) on the **Piano Zero** profiles previously laid. Once the screed prepared with Politerm® Blu mortar has reached a residual humidity not higher than 2% (measured with carbide tool), it is possible to realize a cement layer **20 mm thick**, which can be realized with premixed self levelling mortar, **Ariete Liv 30** type, or after the treatment with **Edilstik** laid "fresh on fresh". The lightweight screed obtained is suitable to receive the following direct glue application of resilient flooring, such as linoleum, PVC, rubber, moquette, etc. The flooring application can be done after the curing and evaluation of the residual humidity of the laying surface.

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The screed obtained will have the following characteristics:

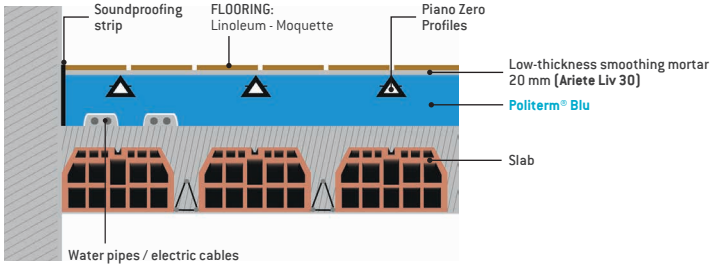
FORMULA (Absolute technical characteristics)	300	350
Density after 28 days kg/m^3	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,080	0,103
Compressive strength N/mm^2	1,61	1,69
Flexural strength N/mm^2	0,95	0,59
Cohesion kPa	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	62	n.a.
Cold-sealed membrane rupture N/50 mm	47	n.a.
Elasticity module N/mm^2	551,1	n.a.
Permeability to water vapour μ	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,352	0,270
Acoustic performance ΔL_w	26 dB [b]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.
Fire reactivity class	A2-s1,d0	

([a]) 1000 J/kgK = 0,24 kcal/kgK / ([b]) Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- For the realization of lightweight single layer screeds, laid with **Piano Zero** method, the possible application of detaching or acoustic insulating mats must be done the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

BETWEEN FLOORS: LIGHTWEIGHT THERMAL INSULATING LAYER WITH LOW-THICKNESS SMOOTHING MORTAR (20 mm)



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INTERMEDIATE LAYER

FOR THE APPLICATION OF ASPHALT ROAD SURFACE

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Intermediate Layer method: suitable for the application of asphalt, also intended for the transit of vehicles.**

APPLICATION FIELDS: slabs between floors, ground floors.

MINIMUM APPLICATION THICKNESS: 100 mm.
In case of lower thickness, contact Edilteco Technical Department.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: super-light aggregate in virgin expanded polystyrene beads with constant particle size (beads Ø 3 - 6 mm or Ø 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 300 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration.

The main stratigraphies, that can be realized, are:
a. Flooring on slab with below a waterproofing membrane + non-woven fabric layer + 50 mm of asphalt.
b. Ground floor (without waterproofing membrane) + non-woven fabric layer + 50 mm of asphalt.

NB. in case of application of a waterproofing membrane and/or DPM under Politerm® Blu screed, it must be covered by reinforced concrete (minimum thickness 100 mm). Types and methods as prescribed by the Technical Project Manager, according to the intended use.

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	300	350
Density after 28 days kg/m^3	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,080	0,103
Compressive strength N/mm^2	1,61	1,69
Flexural strength N/mm^2	0,95	0,59
Cohesion kPa	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	62	n.a.
Cold-sealed membrane rupture N/50 mm	47	n.a.
Elasticity module N/mm^2	551,1	n.a.
Permeability to water vapour μ	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,352	0,270
Acoustic performance ΔL_w	26 dB [b]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.
Fire reactivity class	A2-s1,d0	

([a]) 1000 J/kgK = 0,24 kcal/kgK / ([b]) Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

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Politerm® Blu screed can be directly applied on concrete slabs, concrete beam decks, compacted ground floor, loose stone foundation, etc., even in presence of a correctly applied DPM (Damp Proof Membrane), without using a galvanized metal mesh. If the receiving surface is made of insulating boards, bituminous and/or synthetic waterproofing layer, ceramic, linoleum, PVC, wooden flooring, carpeting or corrugated steel sheet, etc., before applying Politerm® Blu screed it is recommended to lay a galvanized metal mesh (minimum dimensions: wire ∅ 2 mm, mesh 50 x 50 mm).

TECHNICAL EVALUATION: below, a few remarks about the application of Politerm® Blu base screed in parkings and/or apron areas, where transit vehicles of maximum 3,5 ton weight.

Politerm® Blu base screed at 350 kg/m^3 of cement has a mechanical compressive strength of 1,69 N/mm^2. Considering a mechanical strength of the asphalt not higher than the Politerm® Blu base screed one, and ignoring the weight distribution on the 50 mm of asphalt, below the feasibility calculation of this work:

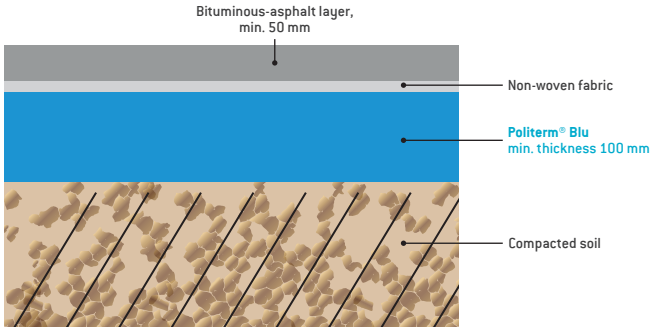
- Max. considered load per each vehicle: 3500 kg
- Print per each tyre (200 x 100 mm): 200 cm^2
- For 4 tyres the total supported load is: 800 cm^2
- Compressive strength of Politerm® Blu base screed (cement dosage 350 kg/m^3 = 1,69 N/mm^2 = 17,24 kg/cm^2): Approx. 17,24 kg/cm^2
- The compressive strength of Politerm® Blu base screed will be 800 cm^2 x 17,24 kg/cm^2 = 13.792 kg

This result is much higher than the maximum load caused by any four-wheel vehicle.
Concerning the compatibility between the Politerm® Blu base screed and the asphalt layer, there is any particular problem using the stratigraphies proposed in the "Item Specification" paragraph. These kinds of application have been realized by Edilteco technicians in Spain (outdoor apron above an the underground parking of the New Theatre of Catalonia, Barcelona - 1995) and Portugal (city car parking in Porto in 1996 and Braga).

WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

SPECIAL APPLICATION: BASE SCREED FOR BITUMINOUS-ASPHALT LAYER



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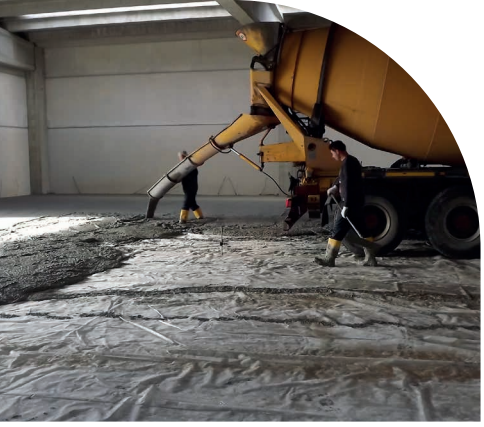

INTERMEDIATE LAYER

APPLICATION OF CONCRETE INDUSTRIAL FLOORING

APPLICATION: lightweight thermal insulating screed, composed of Politerm® Blu beads, supplied in bags of 500 L and/or 200 L, laid by skilled applicators using the **Intermediate Layer method: suitable for the application of concrete industrial flooring, also intended for the transit of vehicles.**

APPLICATION FIELDS: slabs between floors, ground floors, etc.

MINIMUM APPLICATION THICKNESS: 100 mm. *In case of lower thickness, contact Edilteco Technical Department*

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Politerm® Blu manufactured by Edilteco S.p.A.: super-light aggregate in virgin expanded polystyrene beads with constant particle size (beads Ø 3 - 6 mm or Ø 2 mm (Politerm® Blu Fein) and with controlled density; coated bead by bead with E.I.A. additive during the production phase, which allows the perfect mixing with water binder, eliminates the bead flotation phenomenon and guarantees their homogeneous distribution in the mix. The mix can be batched with a density of 300 to 350 kg/m^3 using Portland 32.5 Cem I or Cem II, without adding sand and/or other additives. Therefore, every cubic metre of mortar will be prepared only with 840 L of Politerm® Blu beads, Portland 32.5 Cem I or Cem II cement in the dosages prescribed and the relative quantity of water required for hydration.

The main stratigraphies, that can be realized, are:

a. ***Flooring on slab with waterproofing layer***: Politerm® Blu screed + waterproofing membrane + non-woven fabric layer + concrete industrial flooring, realized according to the project specification for the intended use.
b. ***Ground floor with waterproofing layer and/or DPM:*** Politerm® Blu screed + waterproofing membrane and/or vapour barrier + non-woven fabric layer + concrete industrial flooring, realized according to the project specification for the intended use.
c. ***Ground floor without waterproofing layer and/or DPM:*** Politerm® Blu screed + non-woven fabric layer + concrete industrial flooring, realized according to the project specification for the intended use.

NB. in case of application of a waterproofing membrane and/or DPM under Politerm® Blu screed, it must be covered by reinforced concrete (minimum thickness 100 mm). Types and methods as prescribed by the Technical Project Manager, according to the intended use.

The screed obtained will have the following characteristics:

FORMULA (Absolute technical characteristics)	**300**	**350**
Density after 28 days kg/m^3	approx. 315	approx. 365
Thermal conductivity λ_D W/mK	0,080	0,103
Compressive strength N/mm^2	1,61	1,69
Flexural strength N/mm^2	0,95	0,59
Cohesion kPa	127,17	n.a.
Hot-sealed membrane rupture N/50 mm	62	n.a.
Cold-sealed membrane rupture N/50 mm	47	n.a.
Elasticity module N/mm^2	551,1	n.a.
Permeability to water vapour μ	7,2	9,2
Specific heat J/kgK	1000 [a]	1000 [a]
Shrinkage (NBN) mm/m	0,352	0,270
Acoustic performance ΔL_w	26 dB [b]	n.a.
Impact noise insulation $L'_{nT,W}$	n.a.	n.a.
Fire reactivity class	A2-s1,d0	

[a] 1000 J/kgK = 0,24 kcal/kgK / [b] Value obtained in lab. with 7 cm of Politerm® Blu + Fonotech 5.

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Politerm® Blu screed can be directly applied on concrete slabs, concrete beam decks, compacted ground floor, loose stone foundation, etc., even in presence of a correctly applied DPM (Damp Proof Membrane), without using a galvanized metal mesh. If the receiving surface is made of insulating boards, bituminous and/or synthetic waterproofing layer, ceramic, linoleum, PVC, wooden flooring, carpeting or corrugated steel sheet, etc., before applying Politerm® Blu screed it is recommended to lay a galvanized metal mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm).

TECHNICAL EVALUATION: below, a few remarks about the application of Politerm® Blu base screed in parkings and/or apron areas, where transit vehicles of maximum 3,5 ton weight.

Politerm® Blu base screed at 350 kg/m^3 of cement has a mechanical compressive strength of 1,69 N/mm^2. Considering a mechanical strength of the asphalt not higher than the Politerm® Blu base screed one, and ignoring the weight distribution on the 50 mm of asphalt, below the feasibility calculation of this work:

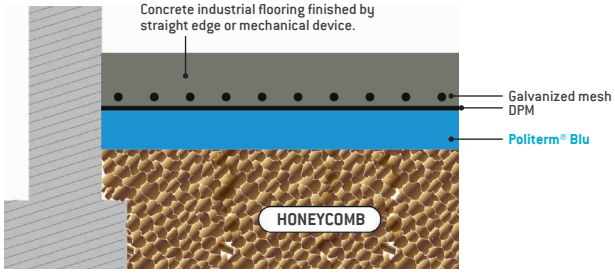
- Max. considered load per each vehicle: 3500 kg
- Print per each tyre (200 x 100 mm): 200 cm^2
- For 4 tyres the total supported load is: 800 cm^2
- Compressive strength of Politerm® Blu base screed (cement dosage 350 kg/m^3 = 1,69 N/mm^2 = 17,24 kg/cm^2) equal to: Approx. 17,24 kg/cm^2
- The compressive strength of Politerm® Blu base screed will be 800 cm^2 x 17,24 kg/cm^2 = Approx. 13.792 kg

This result is much higher than the maximum load caused by any four-wheel vehicle.
Concerning the compatibility between the Politerm® Blu base screed and the asphalt layer, there is any particular problem using the stratigraphies proposed in the "Item Specification" paragraph.

WARNINGS AND PRECAUTIONS:

- When laying Politerm® Blu screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Politerm® Blu screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Politerm® Blu screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Politerm® Blu, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

SPECIAL APPLICATION: LEVELLING THERMAL-INSULATING LAYER UNDER INDUSTRIAL FLOORING



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CONCRETE BATCHING PLANTS

DOSAGES AND METHODS FOR THE REALIZATION OF LIGHTWEIGHT THERMAL INSULATING MORTARS IN TRUCK MIXER WITH POLITERM® BLU READY MIX AND POLITERM® BLU FEIN READY MIX

DOSAGE FOR 1 m³ YIELD OF LIGHTWEIGHT THERMAL INSULATING MORTAR:

FORMULA	WATER * (L)	CEMENT PORTLAND 32.5R CEM I or CEM II (kg)	POLITERM® BLU READY MIX and POLITERM® BLU FEIN READY MIX	SAND 0,4 - 0,6 mm (kg)
110 **	55	110	~ 880 L	-
200	90	200		-
250	110	250		-
300	140	300		-
350	160	350		-
500	140 ***	300		160
800	140 ***	300	680 L	450
1200	140 ***	300	510 L	850

(*): the water dosage has to be adapted to the quality of the batch of cement used.
(**): **to be realized only with Politerm® Blu Fein Ready Mix**
(***): adjust according to the sand moisture content. Please contact us for further formulas.

ORDER OF INTRODUCTION INTO THE TRUCK MIXER - MIXING AT FULL SPEED:

1. Water: as much as required for the mix, less about 20 - 30 litres (see point 7).
   NB. water-cement ratio 0,4:0,5 according to the cement characteristics;
2. **Politerm® Blu Ready Mix - Politerm® Blu Fein Ready Mix;**
3. mix for about 10 minutes at top speed;
4. cement;
5. sand (if applicable);
6. mix for about 10 minutes;
7. clean the loading bowl with approx. 20 - 30 litres of water (thus completing dosage of the mixing water);
8. add water, according to the residual moisture of the sand.

WARNINGS AND PRECAUTIONS:

- **DENSITY 110: TO BE PUMPED ONLY WITH A STATOR/SCREW PUMP.**
- **Minimum pumping density: 250 kg/m³;**
- If the truck mixer has a volumetric capacity of 10 m³, prepare the load for 9 m³.
- During the trip from the batching plant to the building site, the truck mixer has to run at maintenance speed. Once on site, and after any possible addition of water, the turning time of the truck mixer at the maximum speed, is 1 minute per m³ of mixture.
- The ambient temperature can affect the yield. In summer this is not a problem, but in winter the mixing water temperature may drop close to "zero". It is therefore recommended to increase the mixing time in the truck mixer by 5 - 8 minutes after adding some cement.
- Do not mix and lay Politerm® Blu when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Politerm® Blu. *The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.*
- In case of pumps with piston exchanger, the mortar can be realized only using Politerm® Blu Ready Mix and cement (see the dosages table).
- In case of pumps with blade exchanger, the mortar must be realized using Politerm® Blu Ready Mix, cement and sand (see the dosages table), in order to avoid pumping problems.
- Before starting to pump the Politerm® Blu Ready Mix mortar, it is mandatory to pump the water/cement grout, in order to wet the entire pipe section. Then, before starting to pump the Politerm® Blu Ready Mix mortar, introduce the sponge "tube cleaner", in order to prevent the possible washing out of the beads, caused by the residual water in the pipes, and avoid in this way the possible formation of plugs.
- For a correct pumping, normally done using piston pumps, pour the Politerm® Blu Ready Mix mortar in the pump hopper and start pumping slowly, until the mortar flows out from the pump hose. Then, continue to pump at the desired speed.
- Check the amount of residual moisture in the sand, taking care not to add too much water in the mixture.

EDILTECO group

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- For correct operation and optimal pumping, it is recommended to run tests with quantities not less than 5 m^3 at a time.
- Any restriction/bottleneck on the holding material pipe can cause the "cap" formation. It is therefore recommended to use pipes with the same diameter up to the discharge terminal.
- Always verify that the held hose connector are intact, avoiding any possible air suction that would cause the lack of pumping of the lightweight base screed prepared with Politerm® Blu Ready Mix.
- ***For different mixing device, please contact Edilteco Technical Department.***

ADVICES FOR THE TRUCK MIXER CLEANING:
- Discharge the leftover material into containers which allow the water to run off and to re-use the Politerm® Blu Ready Mix beads and aggregates, only for lean concrete.
- The use of sand in the mixture with Politerm® Blu Ready Mix, reduces the waste of beads, but it DOES NOT allow to avoid the cleaning phase. The following rule must also be respected.

OBLIGATIONS:
For the FIRST work after the cleaning, the truck mixer MUST be used for the pumping of lean concrete, and NEVER for the application of industrial flooring.

SPECIFIC EQUIPMENT (see Appendix 3 "Equipment and spare parts"):
Edilteco suggests the use of specific equipment, designed for batching plants, for the preparation and pumping of lightweight thermal insulating mortars prepared with Politerm® Blu Ready Mix. The use of this specific equipment speeds up the loading, the preparation and the working time, ensuring a constant excellent result of the final product.

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MAIN PRODUCTS

POLITERM® BLU

Superlight thermal insulating aggregate composed of virgin expanded polystyrene beads,
with grain size in curve (Ø 3 - 6 mm) and controlled density. During the production, the beads are mixed with the special E.I.A. additive, which allows a perfect mixing with water and binder, even at very low dosages. The homogeneous distribution of the beads throughout the mixture and the elimination of bead flotation problem, create a perfect product to be pumped.

Packaging / Yield:
Bag of 170 L for a yield of 200 L (1/5 m^3) of finished mortar;
Bag of 420 L for a yield of 500 L (1/2 m^3) of finished mortar.

POLITERM® BLU FEIN

Superlight thermal insulating aggregate composed of virgin expanded polystyrene beads,
with fine grain size (Ø 2 mm), and controlled density. During the production, the beads are mixed with the special E.I.A. additive, which allows a perfect mixing with water and binder, even at very low dosages. The homogeneous distribution of the beads throughout the mixture and the elimination of bead flotation problem, create a perfect product to be pumped.

Packaging / Yield:
Bag of 170 L for a yield of 200 L (1/5 m^3) of finished mortar;
Bag of 420 L for a yield of 500 L (1/2 m^3) of finished mortar.

POLITERM® BLU READY MIX

Specific for the mixing in truck mixer.
Superlight thermal insulating aggregate composed of virgin expanded polystyrene beads,
with grain size in curve (Ø 3 - 6 mm) and controlled density. During the production, the beads are mixed with the special E.I.A. additive, which allows a perfect mixing with water and binder, even at very low dosages. The homogeneous distribution of the beads throughout the mixture and the elimination of bead flotation problem, create a perfect product to be pumped.

Packaging / Yield:
Bag of 440 L for a yield of 500 L (1/2 m^3) of finished mortar.

POLITERM® BLU FEIN READY MIX

Specific for the mixing in truck mixer.
Superlight thermal insulating aggregate composed of virgin expanded polystyrene beads,
with grain size in curve (Ø 2 mm). and controlled density. During the production, the beads are mixed with the special E.I.A. additive, which allows a perfect mixing with water and binder, even at very low dosages. The homogeneous distribution of the beads throughout the mixture and the elimination of bead flotation problem, create a perfect product to be pumped.

Packaging / Yield:
Bag of 440 L for a yield of 500 L (1/2 m^3) of finished mortar.

PRODUCT WITH LOW *environmental impact*
little energy used in production and transportation, **a lot of energy** saved, thanks to its thermal performances *

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COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

COMPLEMENTARY PRODUCTS

ISOLCAP MAX 800

Premixed lightweight and thermal insulating screed, based on superlight aggregates of virgin expanded polystyrene beads (∅ 2 mm), mixed bead by bead with the special E.I.A. additive during the production. Specific for the realization of lightweight single layer base screeds with Piano Zero method for the direct application of the final flooring.

Packaging / Yield: bag of 50 L - 1 m^3 of lightweight thermal insulating mortar is obtained with 19 - 20 bags (according to the equipment used and the mixing).

LA CHAPE XXs®

Lightweight and thermal insulating screed, composed of virgin expanded polystyrene beads (∅ 2 - 3 mm), mixed with the special E.I.A. additive, aggregates and other special binders. Excellent mechanical performances for the renovation of difficult or sensitive surfaces.

Packaging / Yield: bag of 23 L - 12 kg/m^2/cm of thickness according to the compression. 1 bags = 0,76 m^2 per 30 mm thickness.

PIANO ZERO PROFILES

PVC screed rails used to fix the finished height of the screed. They are particularly suitable for single layer lightweight screeds.
Each profile is 2 meters long and 50 mm high.
The special cross-section design allows them to be securely fixed and held within the screed, highly stable with excellent alignment. They also prevent the formation of thermal bridges. Piano Zero screed rails can also be used in traditional sand and cement screeds; in this case, they act as the contraction or shrinkage joint.

ARIETE LIV / ARIETE LIV 30 *Smoothing mortar*

Ready to use self-levelling mineral mortar in powder, for manual and mechanical application. Suitable as a high strength top coating layer or for the fine levelling of Politerm® Blu or Isolcap lightweight screeds *(see Edilteco application manuals)* prior to laying ceramic tiles, stone or marble floors and parquet flooring.

Packaging / Yield: bag of 25 kg - 1,6 kg/m^2 per 10 mm thickness.
Applicable thickness: Ariete Liv from 1 to 10 mm - Ariete Liv 30 from 3 to 30 mm.

KRONOS

Premixed screed for the realization of internal and external base screeds, with medium-quick drying time, controlled shrinkage, composed of selected aggregates and special additives. Kronos can be used on all types of floor slabs, with or without thermal and/or acoustic insulation and on lightweight screeds. Once dry, any type of coating (wood, ceramic tiles, carpet, plastic coatings, etc.) can be applied on the screed.

Packaging / Yield: bag of 30 kg - 17 kg/m^2 per 10 mm thickness.

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COMPLEMENTARY PRODUCTS

EDILSTIK

Synthetic latex for improving the adhesion properties of the cement screeds. To be used for the realization of lightweight single-layer screeds (Piano Zero method) to promote the adhesion to the support and for the realization of low thickness smoothing mortars as surface protection.

Packaging: Bottles 1 kg / Can 5 kg / Can 20 kg / Tank on pallet 1000 kg.

EDILSTIK F.C.A.

Pigmented synthetic latex for the temporary stabilisation of asbestos fibre cement sheets (type "D" certificate). To be applied before the encapsulation method with lightweight thermal insulating Politerm® Blu range mortars.

Packaging: Can 5 kg / Can 20 kg / Tank on pallet 1000 kg.
Colour: yellow - orange.
Low-pressure application with spray nozzle (see Edilstik Blow Machine) or airless.
Also available in the pre-diluted version.

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EQUIPMENT

POLITERM® MACHINE 1000 H2O

Entirely stainless steel equipment for the preparation (mixture) and pumping of screeds and lightweight screeds composed by fine grained materials such as virgin expanded polystyrene beads, reclaimed expanded polystyrene beads, perlite, vermiculite and cork, also mixed with cellular foam produced by specific equipment. The maximum length of the pipe for carrying the mortar is of 100 m with a maximum height of 30 m.

Electrical power supply: 400 V - 50 Hz.
Also available in ECO version.
Also available with diesel fuel: homologated diesel engine in accordance with regulation of noise pollution.
Available with tank: from 1 m^3.

ISOLCAP MACHINE H2O

Entirely stainless steel equipment for the preparation (mixing) and pumping of screeds and lightweight screeds (in particular the ready to use ones of the Isolcap range) composed of fine grained materials like virgin expanded polystyrene beads, reclaimed expanded polystyrene beads, perlite, vermiculite, cork and self-levelling screeds (concrete and anidrihite).

Weight: 320 kg. *Capacity tank:* approx. 220 L
Electrical power supply: 2,2 kW - 400 V.
Maximum length of the pipe for carrying the mortar: 30 m with a maximum height of 15 m. Equipped with automatic water dosage system.

* **It is also available in the following version:**

ISOLCAP MACHINE HE H2O

For the set-up consult the technical data sheet.

POLITERM® PUMP with or without hopper

Mixing machine with pumping system for lightweight screeds consisting of virtual aggregates like virgin expanded polystyrene beads, recycled expanded polystyrene beads, perlite, vermiculite and cork, even when mixed with cellular foam. Pumping capacity up to 120 m in length and up to 30 m in height.
Available in the following types:
· *Electrical power supply:* 400 V.
· With hydraulic engine provided by external supply (e.g. trucks).

Customized fittings available on request.

POLITERM® BLOW READY MIX

Blowing machine for the loading of Politerm® Blu into the truck-mixer. Equipment for the lifting up and unloading of Politerm® Blu beads into the truck-mixer.
· *Electrical power supply:* 400 V.
· *Hopper capacity:* 760 L.

Customized fittings available on request.
Also available without hopper.

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EQUIPMENT

POLITERM® MACHINE SCREW

Equipment for the mechanical addition of cement into the Politerm® machine tank.
Electrical power supply: 400 V.

Customized fittings available on request.

LEVELLING TOOL

Aluminium straight edge rail with handle for the spreading of lightweight screeds.

EDILSTIK BLOW MACHINE

Equipment for atomizing latex.
Electrical power supply: 230 V / 50 Hz.

HIGH RESISTANCE RIGID METAL PIPE

This accessory improves the flowing of the mortar and avoids the risks of breaking and bursting the pipes while working. **Essential for pumping to heights greater than 10 meters.**
3 meters long pipes with flanges and rings for fixing to scaffolding.

METAL ELBOW FOR PIPES

Available with 45° and 90° elbow.
Weight 128 kg.

STEEL REINFORCED RUBBER PIPE

Pipes for pumping lightweight screeds with Politerm® Machine.
10 m long pipes complete with flanges.

LIGHT PLASTIC PIPE

Pipes for pumping lightweight screeds (end length) with Politerm® Machine.
10 m long pipes complete with flanges.

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