



# ISOLCAP XX 500

**PRE-MIXED, FIBRE-REINFORCED, LIGHTWEIGHT  
AND THERMAL INSULATING SUBFLOOR**

## ISOLCAP XX 500

Pre-mixed, fibre-reinforced, lightweight and thermal insulating subfloor

COMPOSITION	Special hydraulic binders and selected aggregates pre-dosed at 500 kg/m <sup>3</sup> , virgin expanded polystyrene beads, perfectly spherical with high thermal insulation capacity ( $\emptyset \leq 2$ mm), enriched with a special E.I.A. product that ensures perfect mixing, optimal pumpability, and homogeneous distribution of the beads in the mixture, along with special additives and polypropylene fibers.
PACKAGING AND STORAGE	<ul style="list-style-type: none"> <li>· Bags of 70 L yield.</li> <li>· Pallets of 40 bags.</li> <li>· It is recommended the use within 6 months from the packaging. The product maintains the technical characteristics for over 12 months if conveniently stored (in a dry and fresh place, protected from frost, water and direct sunlight). It is recommended to use suitable protection devices.</li> </ul>
FIELDS OF APPLICATION	<ul style="list-style-type: none"> <li>· Single-layer lightweight thermal insulating screeds for floor coverings laid with glue (<i>see notes on page 2</i>). Not suitable for direct laying of resilient floor coverings.</li> <li>· Lightweight thermal insulating subfloor (with or without falls).</li> <li>· Lightening and filling castings.</li> <li>· Roof thermal insulation (pitched or flat roofs with or without falls). Suitable for direct laying of prefabricated waterproofing membranes (hot bituminous, cold bituminous, cold synthetic) or solvent-free liquid sheaths.</li> </ul>
CONSUMPTION / YIELD	1 m <sup>3</sup> of lightweight thermal insulating mortar is obtained with 13 - 14 bags (depending on the equipment used and the accuracy of the mix).
SURFACE PREPARATION	<ul style="list-style-type: none"> <li>· Thoroughly clean the laying surface removing residues and dust.</li> <li>· Lay Piano Zero Profiles (single-layer screeds) or prepare the level points (intermediate levelling subfloor).</li> <li>· Moisten the laying surface (if absorbent) taking care not to create puddles.</li> <li>· Highly absorbent surfaces (such as hollow brick, etc.): proceed to the perfect cleaning and dusting removal from the laying surface. Apply an adhesion promoter grout and an absorbing reductor composed of cement / Edilstik / clean water (Edilstik / water ratio 1:1). After drying, wet the laying surface and proceed to lay the lightweight screed. Wet the surface as you proceed with the application of the lightweight screed.</li> <li>· Non-absorbent surfaces: before applying Isolcap XX 500, treat the surface with Edilkronos Universal.</li> </ul>
APPLICATION	<p><b>It can be mixed with:</b></p> <ul style="list-style-type: none"> <li>· Drill with whisk.</li> <li>· Cement mixer.</li> <li>· Mixer type "Turbomalt".</li> </ul> <p><b>It can be mixed and pumped on site with:</b></p> <ul style="list-style-type: none"> <li>· Politerm<sup>®</sup> Machine (<i>see Edilteco equipment</i>).</li> <li>· Isolcap Machine (<i>see Edilteco equipment</i>).</li> <li>· Plastering machine (<i>see notes on Page 2</i>).</li> <li>· Truck mixer and concrete pump.</li> <li>· Pump type "Turbosol".</li> </ul> <p>Hydrate with clean water in proportion of 10 - 11 L per bag. Mix for at least 3 minutes and not more than 5 minutes (<i>except when using a plastering machine</i>).</p>
WARNINGS	<ul style="list-style-type: none"> <li>· Do not apply with temperatures under +5 °C or over +35 °C or under the direct sunlight. If the application is made under the direct sunlight, necessary precautions must be taken (e.g. mesh or similar that cover the scaffolding).</li> <li>· It is recommended to lay edge strips of acoustic insulation higher than the floor covering.</li> </ul>



WARNINGS	<ul style="list-style-type: none"> <li>· <b>Minimum thickness:</b> <ul style="list-style-type: none"> <li>a) <i>Absorbent surfaces:</i> 5 cm, including the space between the top of any technological systems and the underside of the final flooring. For reduced thicknesses, refer to the “<i>Isolcap Installation Manual</i>” or contact the <i>Edilteco Technical Department</i>.</li> <li>b) <i>Non-absorbent surfaces:</i> consult “<i>Isolcap Installation Manual</i>” or contact the <i>Edilteco Technical Department</i>.</li> </ul> </li> <li>· For detailed application methods consult “<i>Isolcap Installation Manual</i>”.</li> <li>· During the change of each pallet, verify the quantity of water into the mixture.</li> </ul>		
TECHNICAL CHARACTERISTICS	Dry density:	500 kg/m <sup>3</sup>	-
	Specific weight (dry mortar):	approx. 515 kg/m <sup>3</sup>	-
	Thermal conductivity $\lambda_D$ :	0,104 W/mK	UNI EN 12667
	Compressive strength:	2,24 N/mm <sup>2</sup>	UNI EN 1015-11
	Flexural strength:	0,78 N/mm <sup>2</sup>	UNI EN 1015-11
	Permeability to water vapour $\mu$ :	10,2	UNI EN ISO 12572
	Specific heat kJ/kgK:	1,0	UNI EN 1745
	Acoustic performance $\Delta L_w$ :	17 dB *	UNI EN 12354-2
	Moisture resistance:	rotproof	-
	Residual humidity after 28 days:	< 2% in volume (5 cm thick, absorbent surface)	-
	Fire reaction class:	A2-s1,d0	EN 13501-1
	<b>Drying time for direct laying of floor coverings (screed thickness 5 cm, absorbent surface and ambient conditions +20 °C - H.R. 50%), according to the laying surface, the environmental and weather conditions.</b> <ul style="list-style-type: none"> <li>· Ceramic, gres, clinker: after approx. 5 days.</li> <li>· Floating parquet: after approx. 10 days.</li> </ul>		
SPECIAL PROCESSING AND APPLICATIONS	<b>Mixing and pumping with plastering machine 220 V and 380 V:</b> <ul style="list-style-type: none"> <li>· Fit the plastering machine with an expansion tank, a screw and a mixer specific for pre-mixed products based on polystyrene beads.</li> <li>· Keep the loading hopper always full.</li> <li>· It is suggested to use the hopper extension.</li> <li>· Do not use a compressor.</li> <li>· Remove the end nozzle from the material pipe.</li> <li>· Adjust the flow meter to obtain a mortar with a creamy and homogeneous consistency.</li> </ul>		
	<b>Single-layer screed for direct laying of floor covering (specific operations):</b>		
	<b>OPERATION</b>	<b>LAYING / FLOOR COVERING:</b>	
		<b>Laying with glue of:</b> ceramic / stoneware, clinker / terracotta <b>Floating laying of:</b> parquet	<b>Laying with glue of:</b> parquet
	Application of <b>Piano Zero Profiles:</b>	yes	yes
	Floating with “blade” float:	yes	yes
	Surface sanding with electrical brush fitted with sandpaper disks:	recommended	recommended
	Thin-bed surface smoothing with mix based on cement and glue:	recommended <i>when there is heavy foot traffic before laying the floor covering</i>	no
	Surface smoothing with Kronos Autoliv - minimum thickness 5 mm and in any case according to the type of wood and dimension of the wooden strips:	no	mandatory
	<p>All the indications provided in this technical data sheet are purely approximate and not binding for legal purpose. The data listed has been gathered from laboratory tests and it hence follows that in practical applications on building sites the final characteristics of the products may be subject to substantial variations depending on the meteorological conditions and the installation. The user must always check suitability of the product for its specific use, undertaking all liability implicit in and deriving from use of the product, as well as comply with all methods and instructions for use generally referable to “workmanlike” execution. Edilteco S.p.A. reserves the right to change the contents of this mechanical data sheet on its final judgements. The spreading of this data sheet through any media, supersedes and cancels the validity of any other technical data sheet previously published.</p>		

\* Calculated value with 5 cm of Isolcap XX 500 and Fonotech 5.



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COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
ISO 9001