

### **TECHNICAL SHEET N° 411**

Code. 1.967.0525

# ardcoat C16

adhesive coarse-grained waterproof and fibrous filler for thermal insulation systems, in compliance with ETAG 004

# GENERAL FEATURES

ARDCOAT C16 is a cementious grey colored monocomponent ready-mix suitable for the bonding & filling of interior/exterior thermal insulating panels such as expanded polystyrene (EPS), Stiferite, mineral wools (glass or rock) or cork intended for the realization of thermal insulation systems.

The remarkable mechanical properties guarantee a stable and solid adhesion to insulating panels, which are notoriously subject to creeping, as well as the most common mural substrates such as bricks, plastered walls, concrete etc.

ARDCOAT C16 is a filling coarse-grained mortar with an excellent easy application and uniforming power, of two-coat plaster work similar finishing.

It is also suitable for the realization of reinforced fillings on coplanar surfaces with old paintwork or bonded coatings.

ARDCOAT C16 is in grey color, but is available in the with version too, ARDCOAT C16 W. Code. 1.967.0511.

ARDCOAT C16 is complies with the requirements in the Guideline for European Technical Approval ETAG 004 as adhesive and filler for thermal insulation systems.

#### **INSTRUCTIONS**

#### **Substrate preparation**

- Surfaces must be dry, coherent & free from dust, grease, oil, wax and, in the case of concrete, from detaching agents
- The substrate must have a uniform water absorption and not have irregularities exceed 1 cm; on the contrary uniform the surface with ARDPLAN AS/BS.
- In case of hot & dry climates we recommend to dampen the surface before the application.
- In presence of chalky surfaces apply a layer of ISOREST appropriately diluted.

### **Application**

- Thoroughly mix a 25 kg pack of ARDCOAT C16 with 6,3 litres of clean water avoiding the formation of lumps, until obtaining an homogeneous and of plastic like consistency. For this we suggest using a mechanical mixer at a low speed.
- Leave to rest for at least 10 minutes, remix delicately without adding water and proceed with the application.
- Use ARDCOAT C16 within 3 hrs from the mix preparation.

- Do not apply below 5°C or above 35°C. Do not apply on frozen substrates or if frost is predicted within 24 hrs after the application; Avoid extremely wet surfaces, strong sunlight & winds.
- Do not apply directly on plaster based surfaces.
- Apply ARDCOAT C16 with trowel or spatula on the surface of the insulating panels and stick them on the surface.
- Allow at least 48 hrs from the application of the insulating panels, smooth the surface with ARDCOAT C16, position the alkali resistant reinforced mesh and apply a second filling which must cover the mesh perfectly. The recommended final finish should be at least 5mm thick.
- Allow at least 2 days before proceeding with the subsequent dowelling. After 5 6 days proceed with the desired finishing coat.
- Store the product at ambient temperature & protect against humidity
- Wash equipment with water before the mortar begins to harden.
- The mixed product is highly alkaline: use gloves & protective eyewear and, in case of eye contact, wash eyes immediately with plenty of water. Refer to the PSDS for further details.

TECHNICAL	CLASSIFICATION WITH UNI EN 998-1	GP CS III – W2
PROPERTIES	MAX AGGREGATE SIZE	1,5 mm
	APPARENT VOLUME MASS OF POWDER	1400 kg/m³
UNI-EN 998-1	HARDENED MORTAR VOLUMIC MASS AFTER 28 DAYS	1450 kg/m³
conformity	COMPRESSION RESISTANCE AFTER 28 DAYS	7 N/mm²
•	FLEXURE RESISTANCE AFTER 28 DAYS	3 N/mm²
	CAPILLARY WATER ABSORPTION	< 0,20 kg/m²min <sup>0,5</sup> (W2)
	WATER VAPOUR PERMEABILITY μ	< 26
	DYNAMIC ELASTIC MODULUS AFTER 28 DAY	7000 N/mm <sup>2</sup>
	ADHESION TO CONCRETE SUBSTRATES	0,5 N/mm <sup>2</sup> type B fracture
	ADHESION TO EPS SUBSTRATE	>0,1 N/mm <sup>2</sup> type C fracture
	USEFUL LIFE OF THE MIX (POT-LIFE)	3 hrs max
	THERMAL CONDUCTIVITY	0,45 W/mK
	(λ10,DRY-Table value, P=50%)	
	FLASH POINT	Eclass A1
	VOLATILE ORGANIC COMPOUND (VOC)	< 0,01 %

#### **YIELD**

The yield of ARDCOAT C16 varies according to the substrate's planarity and to the filling thickness. Approximately about 9-11  $\rm kg/m2$  of powdered product is expected to be used, considering its use both as adhesive and filler in the thermal insulation system.

# TENDER SPECIFICATION ITEM

## ADHESIVE FOR THERMAL INSULATION SYSTEM

Application on treated surfaces of cement based adhesive coarsegrained for ETICS',synthetic unsaponifiable copolymers & selected quartz flour, like ARDCOAT C16 with a minimum consumption of 3-5 kg/m2 of powdered product. €/m2

#### FILLER FOR THERMAL INSULATION SYSTEM

Application on treated insulating surfaces of an coarse-grained adhesive for cement based insulation systems (ETICS) synthetic unsaponifiable copolymers and selected quartz flour, type ARDCOAT C16 with a minimum consumption of 6 kg/m2 of powdered product for a 5 mm thickness.

€/m2

#### REINFORCED FILLER

Application on treated surfaces of a cement coarse-grained based filler synthetic unsaponifiable copolymers & selected quartz flour, type ARDCOAT C16 with a minimum consumption of 6 kg/m2 of powdered product for a 5 mm thickness. €/m2

The data herein were correct at the time of Quality Control and refer to standardized environmental conditions. The mechanical resistance refers to standardized conditions and may differ to those in construction sites. The same are to be considered as a guide. Revision 2021/06

