



GECO OSMOTIC

Waterproofing

OSMOTIC PENETRATION MORTAR FOR WATERPROOFING SURFACES

GECO OSMOTIC - Waterproofing

Osmotic penetration mortar for waterproofing surfaces

WHY CHOOSE IT	<ul style="list-style-type: none"> · Extremely high waterproofing capacity (< 20 g of water/metre). · Resists negative hydrostatic pressure up to at least 250 kPa. · Provides total protection against carbonation. · Perfect vertical application thanks to anti-sagging technology. · UV-stable: a long-lasting and reliable solution. · Stable when in contact with the most common aqueous solutes (salts, ammonium, etc.). 	
MAIN USES	<ul style="list-style-type: none"> · Protection of cement-based materials and concrete against water and CO₂ penetration (EN 1504-2). · Waterproofing of: tunnels, underground passages, lift shafts, retaining walls and backfilled walls. 	
	<p>SUITABLE SUBSTRATES</p> <ul style="list-style-type: none"> · Concrete. · Aerated concrete. · Masonry and plasters of any kind. · Terracotta, bricks, stone. · Mortars of any type. · Cement-based materials in general, provided their water absorption is not excessive or completely absent. 	<p>PREPARATION</p> <p>The surface must not be oily, powdery, dirty, or inconsistent. It must be free from salt efflorescence (to be removed beforehand by dry brushing, anti-salt treatments such as Geco Antisalt, scratch coats, etc.) and must be even. Any irregularities must be repaired using suitable mortars such as Geco Lime - Scratch (degraded and/or mixed masonry) or Ecap® ADP (reinforced concrete or concrete walls). If the surface is not sufficiently solid and cohesive, it must be repaired and reinforced with suitable cement-based mortars. If release agents (dust, debris) or lubricants (greases, waxes, detergents) are present on the surface, carry out thorough cleaning and/or light abrasion. Pour ³/₄ of the mixing water into a clean container, add the powder, and mix for approximately 3 minutes using a slow-speed mixer, gradually adding the remaining water until a homogeneous paste is obtained.</p>
APPLICATION DATA	Aspect:	grey powder
	Maximum grain size:	0.5 mm
	Open time:	40 minutes from mixing
	Thickness per coat:	1 - 2 mm
	Number of coats:	2+
	Yield:	1.55 kg/m ² per mm
	Fresh density:	≈ 2050 ± 50 g/dm ³
	Water:	5.0 - 5.5 L/bag (20% - 22%)
	Mixing time:	3 minutes
	Packaging:	25 kg bags
	Application and curing temperature:	between +5 °C and +35 °C
	Storage in a dry place:	12 months from date of production

APPLICATION	Apply a first coat by trowel and, after at least 24 hours, a second coat. A third coat, recommended but not essential, can be applied after a further 24 hours, achieving a final thickness of 3 - 5 mm. It is recommended to embed an alkali-resistant mesh between the first and second coat; this becomes mandatory in particular for applications on uneven, cracked or heavily trafficked surfaces, on mixed-material substrates, and at the corners between walls and floors.		
TECHNICAL CHARACTERISTICS EN 1504-2	CHARACTERISTIC	PERFORMANCE	STD. REQUIREMENT
	Flexural strength at 28 days:	> 7 MPa	N.A.
	Compressive strength at 28 days:	> 25 MPa	N.A.
	CO ₂ permeability:	> 200 m	> 50 m
	Water vapour permeability:	Class I (<i>waterproof</i>)	Classes from I to III
	Liquid water permeability/absorption:	< 0.05 kg m ² h ^{-1/2}	< 0.1 kg m ² h ^{-1/2}
	Adhesion after standard curing:	> 0.8 MPa	> 0.5 MPa
	Adhesion after freeze-thaw cycles:	> 0.5 MPa	> 0.5 MPa
	Adhesion after thunder-shower cycles:	> 0.5 MPa	> 0.5 MPa
	Adhesion after thermal ageing:	> 0.5 MPa	> 0.5 MPa
	Resistance to negative hydrostatic pressure:	> 250 kPa	3 classes (50, 100 or 250 kPa)
GENERAL PRECAUTIONS	<ul style="list-style-type: none">· Do not carry out partial mixing and do not add additives or solvents other than clean water at ambient temperature.· Do not use bags that are torn, previously opened or containing hardened or lumpy material.· Do not add extra water to material that has already been mixed.· While still fresh, the product must be protected from bad weather and from excessively rapid drying (by shielding it from direct sunlight and wind) for at least 48 - 72 hours after application.· The data and times given here refer to controlled conditions of +21 °C and 65% R.H. Higher temperatures may accelerate them, while lower temperatures may slow them down and can stop them completely below +5 °C.· Clean tools with water while the material is still fresh.		
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.			