Malta Rapid plus®

MAL200-EN

Product type

Technical fast-application mortar for fixing manholes and road junctions











Main features

- Waterproofed for greater resistance
- High resistance in class R4
- Black in colour to match the colour of the asphalt
- Workability - 15 minutes
- Resistant to salt, frost and thaw
- Opening to traffic: 1h light traffic, 2h heavy traffic
- Not needed formwork

Produced by

Beton Asfalti

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SPECIAL CONSTRUCTION MATERIALS

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MaltaRapid plus ®

Description

MaltaRapid plus is a thixotropic technical mortar with high resistance and rapid fibre hardening, which is black in colour and may be used for fixing manholes and road junctions. MaltaRapid plus has a special formulation that guarantees workability for up to 15 minutes depending on the ambient temperature. Containing polyethylene fibre additives that guarantee high mechanical strength and prevent cracking detachments. MaltaRapid plus guarantees such plasticity so that it can be installed without the use of formwork, even for thicknesses up to 15-20 cm. MaltaRapid plus has an high resistance to salts, frost and thaw. Once hardened, it is resistant to acids, oils, petrol and sewage sludge. MaltaRapid plus is black in colour to match the colour of the asphalt.

Constituent materials



Special mortar

Silica and limestone aggregates

Polyethylene fibres

Silica powder
and specific additives

Application cycle

PREPARATION OF THE SUPPORTS: Make clean cuts of the road surface and demolish using special equipment, remove the moving and damaged parts until a stable support is reached and wet the application site. PREPARATION OF THE MIXTURE: Mix MaltaRapid plus with water at the ratio of 3 litres per 25 kg bag, using a trowel, shovel or electric mixer, to moisturise the binder homogeneously. Mixing with a drill with a low number of revolutions favours, compared to mixing by hand, the obtaining of plastic, soft and workable mixtures. Avoid mixing times with the drill or concrete mixer exceeding 3 minutes or with high rotation speeds. Prepare mixtures that can be easily put into operation within 15 minutes. APPLICATION OPERATIONS: Spread evenly to create a support base for the manhole cover. The product has 15 minutes of workability and there is no need for formwork. Position the manhole cover and carry out the lifting operations to ensure coplanarity with the road surface. Carry out the filling of the perimeter crown up to the level of the road surface, finish with a smoothing trowel at pavement level. In hot climates, protect against rapid drying: keep wet with the help of wet bags/sheets or protective anti-evaporating products.

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	PACKAGING TYPE	ITEM CODE	QUANTITY / PALLET	TOTAL PALLET WEIGHT
Items	MaltaRapid plus in 25 kg bag	BTNMALPLUSA25	40 bags of 25kg	1,0 ton

Product life	12 months in intact packaging protected from moisture.
Item specifications	Supply of fast-hardening thixotropic mortar with compensated shrinkage type MaltaRapid plus , black in colour and reinforced with polyethylene fibres, compliant with EN 124-1-2015 Appendix F. Supplied in 25 kg paper bags, ready to use on site after mixing with water in the proportion of 12%, with plasticity such that it does not require formwork up to 15/20 cm thick. Suitable for fixing road signs, street furniture, curbs, manholes and rehabilitation of wells, small foundations and concrete artefacts. It can also be used at low temperatures. Compression resistance, minimum at 1 hour of 8 N/mm², at 2 hours of 12 N/mm² and at 24 hours of 35 N/mm², resistant to frost and thaw, aggressive agents and hydrocarbons. Maximum storage of 12 months.
Warnings and recommendations	Do not leave the bags of the product exposed to the sun before use; do not add lime, cement or more than the prescribed amount of water to the product and do not use the product when it is already in the hardening phase; do not add water or mix the dough during the gripping phase; do not use damaged or open bags.

Uses









Manholes and drains	Rapid and ultra-resistant repositioning.
Hatches	Remaking of the walls without having to use formwork.
Signage and street furniture	Quick execution of plinths and foundations.
Manhole-covers	Repair, positioning and fixing.

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MaltaRapid plus®

Technical data sheet

		REGULATIONS	U.M.	VALUE
Technical data * These values derive from laboratory tests in a conditioned environment and could be significantly modified by the conditions of operation	Granulometry	UNI EN 1015-1	mm	< 3,0
	Volumetric density	UNI EN 1015-10	kg/m³	2300-2600
	Compression resistance 2h	UNI EN 12190	MPa	8
	Compression resistance 4h	UNI EN 12190	MPa	20
	Compression resistance 1 day	UNI EN 12190	MPa	27
	Compression resistance 7 days	UNI EN 12190	MPa	35
	Compression resistance 28 days	UNI EN 12190	MPa	46
	Tensile strength by bending at 28 days	EN 196/1	MPa	6,5
	Bond adhesion (28 days)	EN 1542	MPa	2
	Compression modulus of elasticity	EN 13412	GPa (28d)	28 in CC 27 in PCC
	Thermal compatibility with freeze-thaw cycles with defrosting salts	EN 13687-1	MPa	> 2
	Capillary absorption	EN 13057	$kg*m^{-2}*h^{-0,5}$	< 0,5
	Chloride ion content (determined based on the powdered product)	EN 1015-17	%	< 0,05
	Reaction to fire	EN 13501-1		A1
	Resistance to severe chemical attack (group 3: heating oil and diesel and unused engine and gear oils)	EN 13529	MPa	No degradation and bond strength > 2

		U.M.	VALUE
Application characteristics	Mixture water	%	12
	Application temperature	°C	+5 +35
	Mixture lifespan	min	15
	Thickness	cm	min. 1 - max. 20
	Mixing time	min	2

Reopening to traffic interval	Light traffic	(< 25 trucks/day): 1 h
	Average traffic	(< 100 trucks/day): 1.30 h
	Heavy traffic	(150-2,000 trucks/day): 3 h
	Exceptional traffic	(> 2,000 trucks/day): 4 h

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Datasheet

Watch the video