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MasterSeal® P 770

2-component primer based on Xolutec - Technology for MasterSeal Systems

DESCRIPTION

MasterSeal® P 770 is a two component primer based on Xolutec - Technology, providing high substrate penetration and acting as bond promoter for the subsequent MasterSeal systems, e.g. MasterSeal 7000 CR.

Xolutec™ - a new dimension in durability

Xolutec is an innovative and smart way of combining complementary chemistries. When the material is mixed on site a cross linked interpenetrating network (IPN) is formed enhancing the overall material properties. By controlling the cross-linking density, the properties of Xolutec can be adjusted depending on the product performance required, e.g. this allows the formulation of materials with varying degrees of toughness and flexibility. Xolutec is very low in volatile organic components (VOC), is quick and easy to apply with both spray and hand application depending on requirements. It cures rapidly even at low temperature, reducing application time thus enabling fast return to service and minimizing downtime.

This technology is not sensitive to moisture and tolerates a wide variety of different site conditions, greatly expanding the application window and reducing the potential for delays and failures. Long maintenance cycles and lower life cycle costs significantly reduce total cost of ownership.

FIELD OF APPLICATION

MasterSeal® P 770 is used as primer on mineral substrates for MasterSeal systems. The primer coat will improve the adhesion and prevent the appearance of pinholes or bubbles in the subsequent hardened coating.

FEATURES AND BENEFITS

- **Low viscosity**
- **Easy to apply**
- **Excellent penetration**
- **Seals pores and capillaries**
- **Moisture tolerant**: can be applied on substrates with high residual humidity.
- **Excellent bond to substrate**
- **Does not contain solvents**.

APPROVALS AND CERTIFICATES

CE Certification as Primer for **MasterSeal® M 790** in the system **MasterSeal® 7000 CR** according to EN 1504-2.

APPLICATION METHOD

(a) Surface Preparation

All substrates (new and old) must be structurally sound, dry, free of laitance and loose particles and clean of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants.

Concrete: The surface should be prepared by shot blasting, high-pressure water jetting or other suitable mechanical method. After preparation, concrete and other cementitious substrates must have a minimum pull off strength of 1 N/mm².

Very rough / irregular substrates on walls should be levelled before application with a suitable fairing coat, e.g. MasterEmaco N 5100 FC. On floors a suitable repair or levelling solution should be used.

The substrate should be visibly dry - there is no limit to residual humidity. Substrate temperature must be minimum +5 ºC and maximum +35 ºC.

(b) Mixing

MasterSeal® P 770 is supplied in working kits which are pre- packaged in the exact mixing ratio.

Pour the entire content of Part B into the container of Part A and mix with a mechanical drill and paddle at low speed (max. 400 rpm) for at least 3 minutes. Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer blades submerged in the coating to avoid introducing air bubbles.

Do not mix part packs and do not mix by hand!

(c) Application

After mixing, **MasterSeal® P 770** is applied to the prepared substrate by brush or roller. The curing time of the material is influenced by the ambient, material and substrate temperatures.

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At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, open time and curing times. High temperatures speed up the chemical reactions thus the pot life, open time and curing times are shortened accordingly. To fully cure, the material, substrate and application temperature should not fall below the minimum.

MasterSeal® P 770 dries as an intense transparent film (within 5 hours @ 20 °C). In case there are holes not covered by primer, please apply a second coat of primer. Wait for at least 5 hours (@ 20 °C) before applying MasterSeal systems.

FINISHING AND CLEANING

Tools can be cleaned with solvent-based cleaner while still wet. Once cured, the material can only be removed mechanically.

COVERAGE

The consumption of **MasterSeal® P 770** is approximately 0.25 – 0.4 kg/m².

This consumption is theoretical and can vary according to the absorption and roughness of the substrate. It is essential to carry out representative trials on site to evaluate the exact consumption.

WORKING TIME

Approximately 20 minutes at 20 ºC ambient and substrate temperature.

PACKAGING

MasterSeal® P 770 is available in 5 kg Kits consisting of 2.2 kg Part A and 2.8 kg Part B.

COLOUR

Milky-ivory.

STORAGE

MasterSeal® P 770 should be stored in original containers under dry conditions at temperatures between 10 - 25 °C preferably. Protect from frost and no permanent storage over +35 °C.

SHELF LIFE

Shelf life under these conditions is 12 months for both parts.

WATCH POINTS

- Do not apply at temperatures below +5 ºC nor above + 35 °C
- Eventual separation of Part A can occur – this is no product failure and the material can be easily re-homogenized by mixing.
- Do not add any solvents or other components to **MasterSeal® P 770** mixes.

HANDLING AND TRANSPORT

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet.

Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the product.

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Technical data				
Property		**Standard**	**Unit**	**Data**
Density of mixed material	Part A Part B mixed	EN ISO 2811-1	g/cm³	approx. 1.3 approx. 1.2 approx. 1.2
Viscosity of mixed material	Part A Part B mixed	EN ISO 3219	mPas	approx. 1140 approx. 125 approx. 650
Application temperature (substrate and material)		-	ºC	from +5 to +35
Maximum substrate moisture (during application)		-	-	not restricted, but surface must be visibly dry
Maximum relative humidity (during application)			%	≤ 75 (at +10 °C) ≤ 85 (at +20 °C)
Pot-life	at +5 °C at +10 °C at +20 °C at +30 °C		minutes	approx. 30 approx. 25 approx. 20 approx. 10
Dry to touch	at +20ºC		hours	approx. 5
Ready for pedestrian traffic / Re-coating interval	at +10 °C at +20 °C at +30 °C		hours	min. 11 min. 5 min. 2
Fully cured	at +10 °C at +20 °C at +30 °C		days	7 5 2
Glass transition temperature after 28 days		EN 12614	°C	55
Adhesion to concrete after 28 d		EN 1542	N/mm²	> 2.0
Adhesion in combination with subsequent layers of - MasterSeal M 790 (Xolutec) - MasterSeal M 310 (epoxy) - MasterSeal M 336 (epoxy-polyurethane) - MasterSeal M 391 (epoxy) - MasterSeal M 689 (polyurea, hot-spray) - MasterSeal M 808 (polyurethane) - MasterSeal M 811 (polyurea-hybride, hot-spray)		EN 1542	N/mm²	 > 2.5 > 3.0 > 2.5 > 3.0 > 2.5 > 2.5 > 3.0

Note: Data are measured at 21°C ± 2°C and 60% ± 10% relative humidity if not stated differently. Higher temperatures and/or higher relative humidity can shorten hardening/curing times, and vice versa. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described in appropriate performance.

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DISCLAIMER

The technical information given in this publication is based on the present state of our best scientific andpractical knowledge. BASF Türk Kimya Sanayi ic. Ltd. Şti. is only responsible for the quality of the product. BASF Türk Kimya Sanayi ve Tic. Ltd. Şti. is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

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CE-marking (EN 1504-2)

CE
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DE0269/01

MasterSeal M 790 (DE0269/01)
EN 1504-2:2004

Surface protection product/coating
(Primer: MasterSeal P 770)
EN 1504-2 Principles 1.3/2.2/5.1/6.1/8.2

Abrasion resistance	Loss of mass < 3000 mg
Permeability to CO_2	s_D > 50 m
Water vapour permeability	Class III
Capillary absorption and permeability to water	w < 0,1 kg/m^{2}h^{0,5}
Thermal compatibility	≥ 1,5 N/mm^2 Pass
Resistance to severe chemical attack Class II: 6a Class III: 1,2,3,4,5,5a,6, 7,10,11,12,14,15a	Reduction in hardness < 50 %
Crack bridging ability	A3 (23 °C) B3.1 (23 °C)
Impact resistance	Class III
Adhesion strength by pull off test	≥ 1,5 N/mm^2
Artificial weathering	Pass
Dangerous substances	Comply with 5.3 (EN 1504-2)

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