

MasterSeal® P 770

Two-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 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.

TYPICAL APPLICATIONS

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.

MasterSeal P 770 can also be used as a primer for suitable waterproof coatings on metal roofing sheets.

ADVANTAGES

- 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

PACKAGING AND COLORS

MasterSeal P 770 is supplied in 5kg kits consisting of 2.2kg Part A and 2.8kg Part B and available in Milky-ivory.

APPROVALS AND CERTIFICATES

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

TYPICAL PROPERTIES*

Density of mixed material EN ISO 2811-1	approx. 1.2 g/cm ³	
Viscosity of mixed material EN ISO 3219	approx. 650 mPas	
Application temperature (substrate)	from +5 to +40°C	
Pot life	at +5°C	approx. 30 mins
	at +10°C	approx. 25 mins
	at +20°C	approx. 20 mins
	at +30°C	approx. 10 mins
Dry to touch at +20°C	approx. 5 h	
Ready for pedestrian traffic / Re-coating interval	at +10°C	min. 11 h
	at +20°C	min. 5 h
	at +30°C	min. 2 h
Fully cured	at +10°C	7 days
	at +20°C	5 days
	at +30°C	2 days
Glass transition temperature after 28 days EN 12614	55°C	
Adhesion to concrete after 28 days EN 1542	> 2.0 N/mm ²	
Adhesion in combination with subsequent layers of - MasterSeal M 790 (Xolutec) EN 1542	> 2.5 N/mm ²	

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.

MasterSeal[®] P 770

APPLICATION GUIDELINES

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 907**. On floors a suitable repair or levelling solution should be used.

Wall/Floor connections must be rounded by using suitable products e.g. **MasterSeal 590**.

The substrate should be visibly dry. Substrate temperature must be minimum +5°C and maximum +40°C. The temperature of the contact surfaces must be at least 3°C above the ambient dew point temperature.

MIXING

MasterSeal P 770 is supplied in working kits which are pre-packaged in the exact mixing ratio. Pour the entire content of Part A into the container of Part B 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 kits and do not mix by hand!

Hand 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.

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. The temperature of the contact surfaces must be at least 3°C above the ambient dew point temperature.

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.

WORKING TIME

Approximately 20 minutes at 20°C ambient and substrate temperature.

CLEANING

Tools can be cleaned with a suitable thinner (Xylene / MEK / Acetone) while still wet. Once cured, the material can only be removed mechanically.

COVERAGE / YIELD


The consumption of **MasterSeal P 770** is approximately 0.25-0.4kg/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

WATCHPOINTS

- For maximum application performance do not apply at temperatures below +5°C nor above +40°C. For higher temperatures consult Master Builders Solutions Technical Services department.
- 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.

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CE-marking (EN 1504-2)

	
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Master Builders Solutions Deutschland GmbH Glasuritstraße 1 D-48165 Münster 16 DE0269/02	
MasterSeal M 790 (DE0269/02)	
EN 1504-2:2004	
Surface protection product/coatings (Primer: MasterSeal P 770) EN 1504-2 Principles 1.3/2.2/5.1/6.1/8.2	
Reaction to fire	Class E
Abrasion resistance	Loss of mass <3000mg
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	≥1,5N/mm ² Pass
Resistance to severe chemical attack Class I: 4a,6a,9,9a,13,15 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) A2 (-10°C) B3.1 (23°C) B2 (-10°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)

® = Registered trademark of the MBCC Group in many countries.
* Properties listed are based on laboratory controlled tests.

STORAGE AND SHELF LIFE

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 +30°C. Shelf life under these conditions is 12 months for both parts.

HEALTH AND SAFETY

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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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

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