

MasterTop® P 677

Solvent Free, Two Component, Epoxy Based Primer

PRODUCT DESCRIPTION

MasterTop® P 677, is an epoxy based, two components, low viscosity primer and penetration material for use on mineral substrates such as concrete and cement.

MasterTop® P 677, A has been tested to, and meets the requirements of the German bridge deck isolation specification TL/TP BEL-EP of the ZTV-BEL-B 87.

FIELDS OF APPLICATION

- With the addition of the appropriate amount of silicasand, it can be used as a repair mortar.
- Used as a surface smoothing mortar on surfaces where bitumen membrane is to be applied. (According to German bridge deck isolation standards TL/TP BEL-EPZTV-BEL-B87.)
- Under MasterTop® epoxy/ polyurethane floor coatings.
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FEATURES AND BENEFITS

- Easy to apply.
- Tolerant to damp that raises from the floor.
- Penetrates to capillary holes within concrete structure hence blocks the holes.
- Provides excellent penetration and adherence on cement based surfaces.
- **MasterTop® P 677** does not lose its performance under sudden temperature changes between -20 - +50°C. It has also been tested under +250°C and above for short periods of time.
- It has been tested according to the German Bridge isolation system standards.
- It does not contain any solvents.

APPLICATION METHOD

Preparation of Substrate

The concrete substrates on which the product is going to be applied should be C25 or dosage of 350 minimum and the concrete should be 3 weeks old at least. After the preparation of the surface, the tensile strength of the substrate should exceed 1.5 N/mm² (tested with an approved pull-off tester at a load rate of 100 N/s). The residual moisture content of the substrate should not exceed 4 % (tested with e.g. CM device). A damp proof course should be installed properly and be intact. The substrate temperature should remain +8°C minimum and the temperature of the substrate should at least be 3 K above the current dew point. All substrates should be structurally sound, dry and clean. Oil, grease and other adhesion impairing contaminants should be removed

Bubble formation on the surfaces which absorbed oil should be removed with the usage of a blastrack or rotatiger. Oil contaminated substrates should first be precleaned with an emulsifying cleaning detergent according to the supplier's instructions. Finally, the concrete or cement screed surface should be cleaned by using a high pressured water jet and excess water should be removed by a wet/dry vacuum cleaner. If **MasterTop® P 677** is to be coated on a soil based substrates a layer against rising damp should be installed according to DIN 18195 (or equivalent) standards. The windows, the doors and the roof should be already installed and closed. **MasterTop® P 677** can be applied when the residual moisture content of the substrate exceeds 4%. Please refer to Technical Help for detailed information.

Mixing

MasterTop® P 677 is supplied as ready to use kits in the exact ratio. Before mixing, precondition both A and B parts to the temperature of +15 - +25°C. Pour the entire contents of part B into the container of part A; make sure that there is no product left in the part B package. Scrape well the sides and the bottom of the container to ensure a thorough mixing. After mixing **MasterTop® P 677** parts for 3-4 minutes, pour the mix into a fresh container, set it aside for a while and mix for another minute. When **MasterTop® P 677** mixture is ready, oven dried silica can be added with a ratio of 1/0.5-1/2 if the surface is too porous. When 1/1 or 1/5 oven dried silica added, **MasterTop® P 677** can be used as a repair mortar.

CONSUMPTION

The consumption of **MasterTop® P 677** is between 0.3 – 0.5 kg/m² depending on the condition and porosity of the substrate.

WATCH POINTS

- Avoid application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +10 or above +30°C.
- The materials to be used at the appropriate temperatures should be brought and stored in the application area 1-2 days prior to the application and enabled to adjust the ambient conditions.
- In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product, the packages should be preconditioned to +20-+25°C to become ready to use.
- Epoxy and polyurethane based floor coatings should be applied by specialists.
- The reaction and workability times of resin based systems depend on the ambient and substrate temperatures as well as the relative humidity.

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Under lower temperatures, the chemical reaction times are prolonged and this increases the pot life, coating interval and the working time. In addition to this, the consumption is increased as the viscosity increases. High temperatures ignite stronger chemical reactions and the above mentioned times decrease accordingly. For the material to be cured properly, the ambient and the substrate temperatures should not fall below the specified limits. After the application, the material should be protected from direct contact with water for 24 hours minimum. Within this period, a contact with water may cause a surface carbonation and/or tackiness; both of which will cause the coating to lose its characteristics. In such cases, the overall coating should be removed from the floor and renewed.

- Permissible relative humidity %75-%90.
- **MasterTop® P 677** is supplied in working packs which are pre-packaged in the exact ratio. No solvent should be added.
- Mixing should be done with a mechanical drill at 300 - 400 rpm with epoxy/polyurethane mixing paddles.
- DO NOT MIX BY HAND.
- After the first mix, contents should be poured into a clean container and mixed once again.
- The empty packs should be consolidated and disposed properly in order to prevent reusing of the packages.

CLEANING

Used tools and equipment must be cleaned carefully with an appropriate solvent: Once fully cured **MasterTop® P 677** can only be removed by mechanical means.

PACKAGING

MasterTop® P 677, is supplied in 15 kg working packs

MasterTop® P 677	Part A	Part B
Mixing Ratio	10,35 Kg	4,65 Kg

STORAGE

Store in original containers, under dry conditions and a temperature between 15–25°C. Do not expose to direct sun-light. For maximum shelf life under these conditions, see "Best before...." label.

WARNING AND PRECAUTIONS

In its cured state, **MasterTop® P 609** is physiologically non-hazardous. The following protective measures should be taken when working with the material:

Wear safety gloves, goggles and protective clothing. Avoid

contact with the skin and eyes. In case of eye contact, seek medical attention. Avoid inhalation of the fumes. When working with the product do not eat, smoke or work near a naked flame. For additional references to safety-hazard warnings, regulations regarding transport and waste management please refer to the relevant Material Safety Data Sheet. The regulations of the local trade association and/or other authorities, regulating safety and hygiene of workers handling epoxy resins must be followed.

DISCLAIMER

The technical information given in this publication is based on the present state of our best scientific and practical knowledge **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is only responsible for the quality of the product. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret 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 (01/2015).

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Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti. Adres: Barbaros Mah. Begonya Sok. Nidakule Kuzey Ataşehir, C Kapısı No:3 E/5, 34746 Ataşehir İstanbul 20 DOP NO: 04.1504.2.023 EN 1504-2 :2004	
MasterTop P 677 Beton Yapıların Korunması ve Tamiri İçin Mamuller ve Sistemler. Bölüm:2 Beton için Yüzey Koruma Sistemleri (Products and systems for the protection and repair of concrete structures Part 2: Surface protection systems for concrete) İki Bileşenli Epoksi Bazlı Solventsiz Astar (Solvent Free, Two Component, Epoxy Based Primer) Pensipler 1.2 Yabancı madde girişine karşı koruma, 5.2 Fiziksel direnç (Principles: 1.2 Protection against ingress, 5.2 Physical resistance)	
Kapiler Su Emme ve Su Geçirgenliği (Capillary absorption and permeability to water)	w<0,1 kg /m ² .vh
İşleme Derinliği (Depth of penetration)	NPD
Çekip Koparma Deneyi Yoluyla Yapışma Dayanımı (Adhesion strength by pull-off test)	Rigid sistemler trafik yüküyle ≥ 2,0 N /mm ² (Rigid Systems With trafficking:≥ 2,0 N / mm ²)
Aşınma Direnci (Abrasion Resistance)	Emprenye uygulanmış numunenin aşınma direnci, emprenye uygulanmamış numuneden en az % 30 daha yüksek olmalıdır. (Impregnated concrete abrasion resistance must high at least 30 % than unimpregnated concrete)
Çarpmaya Direnç (Impact resistance)	NPD
Yangına karşı tepki (Reaction to fire)	E
Tehlikeli maddeler (Dangerous substances)	Madde 5.4 'e uygun (Comply with clause 5.4)

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Technical data *				
Mix ratio			By weight	100 : 45
Density	Mixed	At 23°C	g/cm ³	1,09
Pot life		At 23°C	mm	20
Re-coating intervals			hour	min. 24
		At 10°C	hour	maks. 48
		At 23°C	hour	min. 7
			hour	maks. 36
		At 30°C	hour	min. 3
			hour	maks. 24
Fully cured		At 23°C	days	7
Permissible ambient and substrate temperature			°C	min. 8
			°C	maks. 30
Permissible relative humidity max.		At 10°C	%	75
		At > 23°C	%	85
Technical data cured material*				
Shore D hardness		after 7 days		80
Compressive strength		after 28 days	N/mm ²	50
Bonding strength		after 7 days	N/mm ²	>2

* The above figures are intended as a guide only and should not be used as a basis for specifications.