

MASTERTOP[®] P621

A low viscosity, solvent free, two component epoxy resin based primer

DESCRIPTION

MASTERTOP P 621 is a low viscosity, solvent free, two component epoxy resin based primer. It has a high tolerance to concrete with a damp surface.

RECOMMENDED FOR

MASTERTOP P 621 is designed for use as a primer on mineral substrates such as concrete and cementitious screeds. It is primarily intended for use in bridge deck waterproofing applications under torch applied bitumen sheet and including the application to early age concrete.

MASTERTOP P 621 can also be used in other applications where the concrete surface is damp.

FEATURES AND BENEFITS

- **Moisture tolerant**
- **Can be applied to early age concrete**
- **Resistant to the high temperatures associated with the torching on of bitumen sheet**
- **Low viscosity**
- **Excellent penetration**
- **Seals pores and capillaries**
- **Excellent bond to substrate**
- **Easy to apply**
- **Appearance- transparent liquid**

PERFORMANCE DATA

Mix ratio by weight	100 : 36
Mixed density, at 20°C, g/cm ³	1.13
Mixed viscosity, at 20°C, mPas	440
Working time (25 kg unit), at 12°C, min	50
at 23°C, min	20
at 30°C, min	10
Ready for foot traffic/ re-coating interval, at 8°C,	min. 30
hrs	max. 4
days	
at 23°C,	min. 7
hrs	max. 2
days	
at 30°C,	min. 3
hrs	max. 1
day	
Fully cured, at 8°C, days	8
at 23°C, days	5
at 30°C, days	3
Permissible ambient and substrate temperature, °C	min. 8
	max. 30
Max. permissible relative humidity,	
%, at 8°C	75
%, at > 23°C	85

Technical data cured material

Shore D hardness	83
Glass transition temperature after 12 days, °C	52
Compressive strength, N/mm ²	100
VOC content: g/L	64 (HK prod code P10-11)

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

APPLICATION

MASTERTOP P 621 is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition both A and B components to a temperature of approximately 15 to 25 °C. Pour the entire contents of Part B into the container of Part A. **DO NOT MIX BY HAND.** Mix with a mechanical drill and paddle at a very low speed (ca. 300 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 WORK OUT OF THE ORIGINAL CONTAINER.** After proper mixing to a homogeneous consistency pour the mixed Parts A and B into a fresh container and mix for another minute.

MASTERTOP P 621 should be applied when the ambient temperature is constant or falling as this will decrease the risk of bubble formation due to expansion of air that is enclosed in the concrete. After mixing, **MASTERTOP P 621** is applied to the prepared substrate by spreading with a squeegee and finishing with a roller. Oven dried sand is broadcast into the still wet primer in order to improve adhesion of the following coat.

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 time frames mentioned above are shortened accordingly. To fully cure, the material, substrate and application temperature should not fall below the minimum.

After application, the material should be protected from direct contact with water for approx. 24 h (at 20° C). Within this period, contact with water can cause a surface bloom and/or surface tackiness, both of which must be removed. The temperature of the substrate must be at least 3 °C above the dew point both during the application and for at least 24 hours after the application (at 15 °C).

SUBSTRATE PRE-TREATMENT

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



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adhesion impairing contaminants. Mechanical surface profiling by grit or shot blasting, high-pressure water jetting, grinding or scabbling (including the necessary post-treatment) are the preferred floor preparation methods.

In applications which are subject to medium to severe mechanical loads and stresses e.g. in flooring and car park deck applications, the tensile strength of the substrate should exceed 1.5 N/mm² (check with an approved pull-off tester at a load rate of 100 N/s) after surface preparation.

The residual water content of the fully cured concrete must not exceed 4 % (check with e.g. CM device). Early age concrete can be coated after 7 days however it is then assumed that when the hydration reaction is complete, the water content of the concrete will be less than 4 %. A damp proof course must have been properly installed and be intact.

CONSUMPTION

In concrete bridge deck waterproofing applications under bitumen sheet **MASTERTOP P 621** is applied in 2 coats:

MASTERTOP P 621	0.5 kg/m ²
Silica sand (0.7 – 1.2 mm)	1.0 kg/m ²
MASTERTOP P 621	0.6 kg/m ²

In other applications, the consumption of **MASTERTOP**

P 621 is between 0.3 – 0.5 kg/m² depending on the condition and porosity of the substrate. A second coat of 0.2 – 0.4 kg/m² of **MASTERTOP P 621** is recommended on very porous substrates. Oven dried silica sand 0.3 – 0.8 mm should be broadcast at approximately 1.0 kg/m² into the still wet primer.

The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates.

CLEANING

Re-usable tools must be cleaned carefully with CONICA Cleaner 44 or with e.g. isopropanol.

PACKAGING

MASTERTOP P 621 is supplied in 10 kg and 25 kg working packs and in 185 kg drums of Part A and 200 kg of Part B.

STORAGE

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

PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals.

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** 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. **BASF Construction Chemicals data sheets are updated on a regular basis and it is the user's responsibility to obtain the most recent issue.**

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

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