

# Plastipur® 560

TECHNICAL DATA SHEET

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## Transparent, liquid-applied polyurethane sealer

### Product description

The PLASTIPUR® 560 is a transparent, hard-elastic, one component, aliphatic polyurethane, high-solids coating, used for long-lasting sealing and for waterproofing. This high-technology coating is UV-stable, non-yellowing, weather stable, alkali and chemical resistant and even after aging it remains transparent and elastic.

The PLASTIPUR® 560 protects and waterproofs mineral surfaces against water penetration, frost, smog and acid rain. Aged and oxidized plastic surfaces look more transparent after coating with PLASTIPUR® 560. It waterproofs damaged glass surfaces and protects of glass fragments in case of breaking.

The PLASTIPUR® is used also as a transparent binder resin for exterior sand carpet floor coating applications, especially in exterior applications where flexibility and UV stability is required. For interior applications You can use Plastistone® Epoxy based resins.

The PLASTIPUR® 560 is using a unique curing system (moisture triggered), and unlike other similar systems it does not react with moisture (moisture-cured) and does not form bubbles.

### Advantages

- Simple application (roller or airless spray).
- When applied forms seamless transparent membrane.
- UV stable
- Resistant to water and frost.
- Crack-bridging
- Provides water vapor permeability, so the surface can breathe.
- Provides excellent thermal resistance, it never turns soft.
- Provides excellent weather resistance.
- Maintains its mechanical properties over a temperature span of -40°C to +90°C.
- Provides excellent adhesion to ceramic tiles and glazed surface
- The waterproofed surface can be used for domestic pedestrian traffic.
- Resistant to detergents, oils, seawater and domestic chemicals.
- Even if the membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- Used as a binder resin for exterior sand carpet applications, provides high elasticity and flexibility, making it ideal for applications on balconies and terraces.
- Over 10 years of positive feedback worldwide.

### Uses

- Transparent waterproofing of Balconies and Terraces
- Transparent waterproofing of Ceramic surfaces
- Transparent waterproofing of Glass
- Transparent waterproofing of Glass-Brick walls
- Transparent waterproofing and protection of Natural Stones
- Transparent waterproofing of Transparent Plastics (e.g. Polyacrylate, Polycarbonate)
- Transparent waterproofing and protection of Wood
- Transparent sealer on Plastifloor® MMA floor coatings

Also used as a transparent binder resin for sand carpet exterior floor coating applications.

### Consumption

0,8 - 1,2 kg/m<sup>2</sup> in two or three layers.  
This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

### Colors

The PLASTIPUR® 560 coating is supplied transparent.

### Technical Data \*

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane high-solids pre-polymer	
Elongation at Break	322%	DIN EN ISO 527
Tensile Strength	25.4 N/mm <sup>2</sup>	DIN EN ISO 527
E-modulus	69.5 N/mm <sup>2</sup>	DIN EN ISO 527
Tear resistance	56.9 N/mm	DIN ISO 34, Method B
Elongation at break after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m <sup>2</sup> )	298%	DIN EN ISO 527
Tensile strength after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m <sup>2</sup> )	25.5 N/mm <sup>2</sup>	DIN EN ISO 527

CONSTRUCTION



Gloss retention after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m <sup>2</sup> )	Good	DIN 67530
Surface chalking after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m <sup>2</sup> )	No chalking observed. Chalking grade 0	DIN EN ISO 4628-6
Hardness (SHORE D Scale)	25	ASTM D 2240
Water vapor permeability	8.05 gr/m <sup>2</sup> · 24hours	EN ISO 12572
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to absorbent ceramic tile	>2,0 N/mm <sup>2</sup> (ceramic tile failure)	ASTM D 903 (ELCOMETER)
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change	Inhouse Lab
Service Temperature	-40°C to +90°C	Inhouse Lab
Tack Free Time	6-8 hours	Conditions: 20°C, 50% RH
Light Pedestrian Traffic Time	24 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against detergents, seawater and oils.	

### Application as a Transparent Waterproofing Coating.

#### Surface Preparation

Careful surface preparation is essential for optimum finish and durability.

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. New concrete structures need to dry for at least 28 days. Old coatings, dirt, fats, oils, organic substances and dust need to be removed. Activate (prime) and degrease glass and glazed surfaces with the Plastipur® TILE-PRIMER. Possible surface irregularities need to be smoothed. Any loose pieces and dust need to be thoroughly removed.

Do not wash surface with water!

**ATTENTION:** Surfaces with trapped moisture (e.g. trapped moisture under balconies tiles) must be left to dry completely (max. 5% moisture), before the application of the PLASTIPUR® 560 coating.

**WARNING:** Do not apply the PLASTIPUR® 560 on ceramic surfaces with ascending nitric salts in the joints, without suitable pre-treatment. Do not apply the PLASTIPUR® 560 on surfaces treated in the past with active silane, siloxane, silicon or other water-repellents, because of expected poor adhesion. We recommend an adhesion test, if circumstances and surface history are not clear. On marble and granite please perform an adhesion test, to ensure that adhesion is proper.

#### Repair of cracks and joints:

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results.

Clean concrete cracks, hairline cracks, expansion joints and control joints of dust, residue or other contamination. Prime locally with the Plastipur® 710 Primer and allow 2-3 hours to dry. Fill all prepared cracks and joints with Plastipur® PU 30 sealant. Allow to cure.

#### Priming (Activation of surface)

Prime (activate) non-absorbent glazed surfaces, like glazed ceramic tiles, glass and glass bricks with PLASTIPUR® TILE-PRIMER. Apply the PLASTIPUR® TILE-PRIMER by soaking a clean and dry cloth, and wipe the entire surface off. By this application procedure, you ensure that besides the chemical activation (priming) of the surface, the surface is getting also very effectively degreased. Change cloths often. Make sure that enough quantity of PLASTIPUR® TILE-PRIMER is applied on the entire surface to primed and make sure that you do not leave any untreated spots.

**ATTENTION:** If applied on transparent plastics (polycarbonate, polyacrylate, etc) do not use the PLASTIPUR® TILE-PRIMER!

#### Transparent waterproofing membrane

Pour the PLASTIPUR® 560 coating onto the primed surface and lay it out by roller or by suitable teeth trowel, until all surface is covered. After 12 hours - but not later than 18 hours –apply a second layer of the PLASTIPUR® 560 coating, by using roller or brush. For better waterproofing and wear resistance results, apply a third layer of the PLASTIPUR® 560 coating.

**ATTENTION:** Do not apply the PLASTIPUR® 560 over 1mm thickness (dry film) per layer. For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

#### Finishing

If a satin matt surface is desired, apply one layer of the PLASTIPUR® FINISH.

**WARNING:** The PLASTIPUR® coating system is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface or install a Plastifloor® broadcasting floor system under the final Plastipur® 560 sealer. Please contact our R+D Dept. for more details.

### **Application as a Binder Resin for exterior Sand carpet Coating.**

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#### **Surface Preparation**

Careful surface preparation is essential for optimum finish and durability. If applied on Plastifloor® 332 membran make sure that the surface is clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the sand carpet coating. Maximum moisture content should not exceed 5%. Possible surface irregularities need to be smoothened. Any loose pieces and dust need to be thoroughly removed. Do not wash surface with water!

If applied onto concrete, make sure that the surface is clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. New concrete structures need to dry for at least 28 days. Old coatings, dirt, fats, oils, organic substances and dust need to be removed. Possible surface irregularities need to be smoothened. Any loose pieces and dust need to be thoroughly removed. Do not wash surface with water!

#### **Priming**

Prime concrete surfaces with Plastipur® 750 primer and broadcast silica sand 0,6 – 1,2 mm while still wet.

#### **Sandcarpet Coating**

Mix the PLASTIPUR® 560 with colored Silica Sand (cornsize 0,7-1,2mm or 2,0-3,5mm) in a mixing ratio of 1:10 (resin: sand) by weight, with a low speed mechanical mixer, until the mixture becomes fully homogenous. Pour the mixture onto the prepared surface and apply by flat trowel.

For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

#### **Packaging**

PLASTIPUR® 560 is supplied in 20 kg, 10 kg, 5 kg pails. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5°-30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

#### **Safety measures**

PLASTIPUR® contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet. **PROFESSIONAL USE ONLY.**

Manufacturer:

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data concerning our products and devices as well as concerning our data and procedures are based on an extensive research work and an application technology experience. We obtain these results, with which we do not take over adhesion going beyond the respective single contract, in word and writing after best knowledge, reserve ourselves we however technical changes in the course of the product development. Beyond that our application technology service stands when desired for large consultation as well as for co-operation with the solution manufacturing and application technology problems for order. That does not relieve the user however to examine our data and recommendations before their use responsible for the own use. That applies - particularly for deliveries to foreign markets - also regarding the keeping of patent rights third as well as for applications and procedures, which are not expressly in writing indicated by us. The case of loss our adhesion is limited to indemnifications of same extent, as they plan our general terms of delivery and sales with lack of quality.

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