

# CONIPROOF 593

**2-part Polyurea spray coating, colour stable, aliphatic, elastic, very fast curing, for machine spray application**

## Product description

CONIPROOF 593 is a two part, solvent free; **very fast curing** and **highly reactive**, mechanical and chemical resistant, **colour stable polyuria spray coating**. The application has to be done with suitable two component hot spray machines (e.g. WIWA, Graco, Gamma or similar).

## Fields of application

CONIPROOF 593 is used as crack bridging topcoat on waterproofing layers as e.g., CONIPROOF 401, on primed concrete, on bituminous substrates and steel to create water impermeable layers in construction areas. Due to the spray application and fast curing properties, CONIPROOF 593 can also be used on walls, ceilings and concrete upstands.

Areas of application include waterproofing of buildings, hydraulic structures as water parks or similar applications.

## Properties

After curing CONIPROOF 593 exhibits high elastic properties also at cool ambient temperatures and good wear resistance. CONIPROOF 593 has a sufficiently good chemical resistance under normal applications.

CONIPROOF 593 is **colour stable**, due to that properties in UV exposed areas an additional UV protection is not necessary.

## Technical data

|  |                |  |          |                   |                       |
|--|----------------|--|----------|-------------------|-----------------------|
| <b>Mixing ratio</b>  |                | parts by volume                                  |          |                   | 1 : 1                 |
| <b>Density</b>   | EN ISO 2811-2  | Part A   | at 23 °C | g/cm <sup>3</sup> | 1.1-1.2               |
|  |                | Part B   | at 23 °C | g/cm <sup>3</sup> | 1.1-1.2               |
| <b>Viscosity</b>   | EN ISO 2555    | Part A   | at 23 °C | mPas              | 800                   |
|  |                | Part B   | at 23 °C | mPas              | 2400                  |
| <b>Application</b>   |                | application with high-pressure hot spray machine |          |                   |                       |
| <b>Substrate and application temperature</b><br>(Dew point, min. + 3K)                     |                | minimal  |          | °C                | 5                     |
|  |                | maximal  |          | °C                | 40                    |
| <b>Product temperature</b>   |                | minimal  |          | °C                | 60                    |
|  |                | maximal  |          | °C                | 80                    |
| <b>Permissible air humidity</b>  |                | maximal  |          | %                 | 80                    |
| <b>Recoating interval for following layer</b>  |                | at 20°C  |          | h                 | min. 2<br>max. 4      |
| <b>Consumption</b>   |                | pro mm layer thickness                           |          | ca.               | 1150 g/m <sup>2</sup> |
| <b>Tensile strength</b>  | ASTM D412      |  |          | N/mm <sup>2</sup> | ≥ 19                  |
| <b>Elongation at break</b>   | ASTM D412      |  |          | %                 | ≥ 60-70               |
| <b>Shore D hardness</b>  | DIN ISO 7619-1 |  |          |                   | 60-70                 |
| <b>Taber Test: CS17, 1000 g</b>  | EN 5470-1:2001 |  |          | mg                | < 100                 |
| <b>Pull-off strength concrete</b>  | DIN 1542:1999  |  |          | N/mm <sup>2</sup> | ≥ 2,0                 |
| <i>Above figures are guide values and should not be used as a base for specifications!</i> |                |  |          |                   |                       |

## Application method

Please also [note](#) the [information in our general processing guidelines](#).

CONIPROOF 593 is supplied in separate drums of component A and component B. Part A needs to be homogenized before mixing / application. This is done by using a stirring device especially designed for barrels with screw caps. Then both components can be taken out of the drums using a mixing-and dosing system.

CONIPROOF 593 can only be applied by means a suitable two-component high-pressure machine, which reaches 160 - 200 bar and a temperature of 60 – 80 °C at the spray head.

The application is done wet-in-wet in a couple of layers until reaching the required thickness. We recommend a minimum thickness of 2 mm and as a maximum up to 4mm.

CONIPROOF 593 have to be applied within the recommend temperature and relative humidity limits. The relative [humidity](#) level may not exceed **80%**. The temperature of the substrate should be min. +3°C above the dew point.

Ensure the re-coating interval of the primer (tack-free).

CONIPROOF 593 is a spray coating, therefore make sure, that the surroundings are protected from drizzle (where applicable: watch direction of the wind). Surrounding areas should be protected from overspray by masking off with e.g. polyethylene slide or paper.

### Substrate condition

CONIPROOF 593 may only be applied on sufficiently prepared substrates.

The Substrates to be coated must be firm, dry, load bearing and free of loose and brittle particles and substances, which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants.

As CONIPROOF 593 can be applied on various substrates, the preparation as well as the primer to be used vary.

#### Cementitious substrates:

For cementitious screeds and concrete the minimum pull of strength have to be 1.5 N/mm<sup>2</sup> and shot blasting is the preferred method.

An additional scratch coat must equalize unevenness > 0.5 mm.

#### Asphalt:

In roofing applications, the asphalt should be cleaned by high pressure water jetting.

In mechanically stressed applications note:

When preparing the sub-base by grit blasting with the necessary post-treatment (dust free!) special attention needs to be paid to the grains in the cast asphalt. At least 70 % of the grains need to be open and free of asphalt to allow sufficient adhesion.

The minimum pull of strength have to be 1.0 N/mm<sup>2</sup> and shot blasting is the preferred method.

An additional scratch coat must equalize unevenness > 0.5 mm. You have to use CONIFLOOR 420 as primer.

In case the asphalt is porosity a scratch coat with CONIFLOOR 420 filled with quartz sand mixing ratio 1:03 is necessary. Finally sand off the scratch coat with quartz sand 03/08 approx. 1-2 kg/m<sup>2</sup>

If needed the quality of the sub-base needs to be tested carefully – contaminations in the asphalt have to be avoid. For asphalt, please use CONIFLOOR 420 as primer.

#### Iron / Steel:

Iron and steel must be prepared according to **DIN EN ISO 12944-4** (1998) to a SA 2 ½ surface (sand blasting) or in difficult to reach areas to St 3 (using hand tools or power tools) prior to application of the primer.

Special attention to be paid on the edges ensuring the adhesion.

### Top Coat

CONIPROOF 593 is an aliphatic polyuria and has sufficient UV and weather resistance. An UV-stable top coat or other layers must not installed.

### Consumption

CONIPROOF 593 is normally applied at min. 2.2 – 2.5 kg/m<sup>2</sup>. This corresponds to a thickness of approx. 2 mm.

### Cleaning

The machine is cleaned with Mesamoll or other plasticizers. The gun is cleaned separate with solvent naphtha. Cured material can only be removed mechanically.

### Pack size

CONIPROOF 593 is supplied in drums. Component A containing 205 kg, component B 225 kg. Small pails are also possible on request.

### Colour

Component A: pigmented, component B: unpigmented. Standard colours, but not on stock are: ca. RAL 9005; 9010; 1015; 3009; 5012; 5015; 6010; 6020; 7035; 7040.

### Storage

Store in unopened drums under dry conditions at a temperature range of 15-25 °C.

Do not expose to direct sunlight.

Before use, please see "best before" date on the pail / drums.

### Safety precautions

CONIPROOF 593 is non-hazardous in its cured condition.

For protective measures, transport regulations and waste management please refer to the Material Safety Data Sheet of the product (component A and B),

**VOC contents**

CONIPROOF 593 meets the requirements of the EC directive 2004/42/EC.

The limit value for products ready for use (product type according to table IIA j Type sb) is:

Level II (from 2010) <500 g/l VOC.

When ready to use, this product contains less than 500 g/l VOC.

**CE and UKCA marking:**

See Declaration of Performance

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