

# CONIPUR 217

## Single Component PUR Based Structural Spray Coating

### Product description

CONIPUR 217 is a single component, solvent containing, PUR based, structural spray coating.

### Fields of application

CONIPUR 217 is a PUR based spray coating which can be applied onto polyurethane rubber granule mats.

This type of sports surface can either be applied water permeable or impermeable, and is widely used for athletic tracks or playgrounds.

### Properties

CONIPUR 217 exhibits good adhesion to either pre-fabricated or in situ rubber granule mats. For the

construction of spray coated surfaces it is mixed with EPDM granules (0.5-1.5 mm) and EPDM powder.

Due to the high elasticity and excellent mechanical properties of CONIPUR 217, spray coated surfaces exhibit high abrasion resistance.

When exposed to **UV light**, the product can slightly **chalk** and, depending on the colour, a discoloration might be observed. For the standard colours oxide red and oxide green only the gloss will change slightly. For blue and grey colour massive changes have to be expected (blue will turn green, grey will turn beige).

The application of the sealers CONIPUR 2200 or CONIPUR 2210 with same colour shade protects the spray coated surface from colour changes and chalking.

### Technical Data

<b>Density</b>	at 23 °C	g/cm <sup>3</sup>	approx. 1.05
<b>Viscosity</b>	at 23 °C	mPas	approx. 1000
<b>Isocyanate content</b>	DIN 53185	%	approx. 5.5
<b>Substrate and application temperature</b>	minimum maximum	°C °C	10 40
<b>Permissible relative humidity</b>	minimum maximum	% %	30 90
<b>Tensile strength</b>	DIN 53504	N/mm <sup>2</sup>	12
<b>Elongation to break</b>	DIN 53504	%	600
<b>Tear strength</b>	DIN 53515	N/mm	25
<i>Above figures are guide values and must not be used as a base for specifications!</i>			

### Application method

Before application, CONIPUR 217 has to be **homogenised** by rolling the drums.

The optimal **temperature** of the material before and during application is between **15** and **25 °C**.

The **temperature** on the **base** course must be at least **3 °C** above the current dew point temperature.

In order to apply a **structural** spray coating, CONIPUR 217 is mixed with EPDM granules (0.5-1.5 mm) and EPDM powder, 60 : 40 : 2.5 parts by weight.

EPDM granules and EPDM powder are added to CONIPUR 217 and **mixed** using mixing device, **until** the

blend is **homogeneous**. Proper mixing is necessary in order to achieve a uniform sprayed surface.

The **EPDM granules** used must meet the **specification** given in our "Recommendations for Particle Size Distribution of Rubber Granules".

If necessary, the consistency of the mix can be **diluted** by adding max. 5 % solvent (may **contain** neither alcohols nor water). We recommend using THINNER 21. At **low temperatures** the percentage of EPDM **powder** can be **reduced**

For spraying the mixture onto the base mat a specially designed spray machine is used. The **coverage rate**, per coat, must **not exceed 1.2 kg/m<sup>2</sup>** of the mixture. Exceeding

the coverage rate recommended, can cause foaming of the coating due to the carbon dioxide formed during moisture curing of the material, becoming trapped inside the material.

In order to obtain **good wear resistance** of the sprayed surface, the EPDM granules have to be well imbedded into the polyurethane layer.

This can only be achieved if the **coating is applied** at a total rate of 2.0 kg/m<sup>2</sup> of mixed material. Therefore **two layers** have to be applied.

Never use **moist** EPDM granules or powder as the pot life can be shortened and the surface structure and the cleaning of the spray machine will be impaired.

Pot life and curing time of CONIPUR 217 are influenced by the ambient and substrate temperature. At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, re-coating interval and open time. High temperature and humidity accelerate chemical reactions so the contrary is true. Direct sunshine shortens the time frames considerably.

**Low air humidity** increases the curing time but, in contrary to the installation of base mats, under **no** circumstances is **water** to be sprayed onto the surface.

In case of **low temperatures**, curing can be **accelerated** on the site using ACCELERATOR 10. The necessary amount to be added depends on the weather condition and has to be defined, daily, on site. As a guideline use 0.05-0.10 % ACCELERATOR 10 related to the amount of CONIPUR 217.

During the first hours after application, the material must be protected from direct contact with water.

In case of (expected) **rain**, CONIPUR 217 must not be applied.

### Cleaning agent

Re-usable tools must be cleaned carefully with CLEANER 40 or other suitable solvents (e.g. butyl acetate). Never use water or alcoholic solvents as cleaners.

### Substrate condition

CONIPUR 217 is used for the construction of water permeable structural spray coatings on pre-fabricated or in situ installed rubber granule mats or for the application of water impermeable structural spray coatings on pore sealed rubber granule mats.

The **temperature** on the **base** course must be at least **3 °C** above the current dew point temperature.

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

For **sealed mats**, application of CONIPUR 217 must not be done more than **24 - 36 hours** after application of the pore sealer. If this re-coating does not take place **within** this **period** primer of time, **primer** CONIPUR 72 (see product data sheet) must be applied in order to avoid poor adhesion.

The **interval between** two **spray applications** must not exceed **48 hours**. In case of longer breaks, **clean** thoroughly. Normally, no primer has to be applied.

In case of doubts carry out **adhesion tests** on the site.

### Pack size

CONIPUR 217 is supplied in 210 kg drums.

### Colour

oxide red, oxide green

### Storage

Store in original closed packing under dry conditions at a temperature range of 5 - 25 °C.

Do not expose to direct sunlight.

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

### Safety precautions

CONIPUR 217 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.

CONIPUR 217 meets the requirements of the EC directive 2004/42/EC.