

CONIPUR 216

Two Component PUR Based Structural Spray Coating

Product description

CONIPUR 216 is a two component, solvent containing, PUR based structural spray coating.

Fields of application

CONIPUR 216 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 216 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 216, spray coated surfaces exhibit high abrasion resistance.

The B component of CONIPUR 216 is CONIPUR 322, which is used on the site as a binder for rubber or EPDM granules.

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 (for improved anti-skid properties) with same colour shade protects the spray coated surface from colour changes and chalking.

Technical Data

Mixing ratio	in parts by weight		1 : 2
Density	component A, at 23 °C	g/cm ³	approx. 1.17
	component B, at 23 °C	g/cm ³	approx. 1.06
	mix, at 23 °C	g/cm ³	approx. 1.09
Viscosity	component A, at 23 °C	mPas	approx. 1100
	component B, at 23 °C	mPas	approx. 3300
	mix, at 23 °C	mPas	approx. 1200
Substrate and application temperature	minimum	°C	10
	maximum	°C	40
Permissible relative humidity	minimum	%	30
	maximum	%	90
Tensile strength	DIN 53504	N/mm ²	15
Elongation at break	DIN 53504	%	400
Tear strength	DIN 53515	N/mm	17
<i>Above figures are guide values and must not be used as a base for specifications!</i>			

Application method

Before application, CONIPUR 216 A component has to be **homogenised** by **rolling** the drums or stirring the totes.

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.

Components A and B of CONIPUR 216 are **weighed** out in separate drum in the ratio of 1 : 2 by weight respectively.

Part A and part B are poured into a **mixing container** and are thoroughly mixed using a slowly rotating mixer at about 300 rev/min ensuring that the mixer reaches the sides and bottom of the mixing vessel.

The **mixing** process takes **at least 2 minutes** and must be performed until the blend is **homogeneous** and streak free.

The mixed material is then tipped **into** a 2nd, **clean** pail / drum, **where** EPDM **granules** (0.5-1.5 mm) and EPDM **powder** are **added**.

We recommend to use a 60 : 40 : 2.5 mixture by weight (mix of CONIPUR 216/CONIPUR 322 : granules : powder). **Proper** mixing is necessary in order to achieve a uniform sprayed surface. The spraying is done in **two layers**.

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 not contain alcohols or water). We recommend 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/m²** of the mixture.

Exceeding the coverage rate 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/m² of mixed material.

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 216 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 216.

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

In case of (expected) **rain**, CONIPUR 216 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 216 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 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.

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

For **sealed** mats, application of CONIPUR 216 must not occur more than **24-36 hours** after application of the pore sealer (see product data sheets of CONIPUR 203 and CONIPUR 222).

If this re-coating does **not** take place **within** this **period** 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 216 A component is supplied in 230 kg drums or 500 kg totes and B component, CONIPUR 322, in 220 kg drums or 1.050 kg totes.

Colour

oxide red, oxide green
special colours on request.

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 216 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 216 meets the requirements of the EC directive 2004/42/EC.