

# CONIPUR 322

## Moisture Curing Single Component PUR Binder

### Product description

CONIPUR 322 is a moisture curing, solvent free, unpigmented PUR binder of medium viscosity, based on MDI and TDI. The content of monomeric TDI (tolylene diisocyanate) is very low.

### Fields of application

CONIPUR 322 is used as a moisture curing binder for recycled granules for the paver installation of in situ base mats for sport surfaces.

Depending on the type of surface, these mats are coated with a CONIPUR structural spray coating or a self levelling coating in order to obtain weather resistant and permanently elastic synthetic coatings.

For the paver installation of coloured EPDM granule mats, which are common surfaces for multipurpose fields we recommend CONIPUR 6020, CONIPUR 6080 or

CONIPUR 6090 – please also see "overview binders" or product data sheets.

### Properties

Due to the medium viscosity, CONIPUR 322 is easily mixed with the rubber granules and there is hardly any run-off of the granules.

The long curing time of CONIPUR 322 allows day construction joints to be easily and correctly made.

The yellowing which occurs when CONIPUR 322 is exposed to UV light does not affect its mechanical properties.

Many millions of square meters applied all over the world, as well as more than two decades of experience with CONIPUR 322, guarantee excellent application characteristics, a high quality and long life expectancy of the finished surface.

### Technical data

<b>Density</b>	DIN 53217, at 23 °C	g/cm <sup>3</sup>	approx. 1.06
<b>Viscosity</b>	at 23 °C	mPas	approx. 3300
<b>NCO content</b>	DIN 53185	%	approx. 10.2
<b>TDI monomer percentage</b>	DIN 55956	%	< 0.5
<b>Ready for foot traffic</b>	at 23 °C / 50 % rel. hum.	h	approx. 48
<b>Substrate and application temperature</b>	minimum	°C	15
	maximum	°C	30
<b>Permissible relative humidity</b>	minimum	%	40
	maximum	%	75

*Above figures are guide values and must not be used as a base for specifications!*

### Application method

CONIPUR 322 is a single component product where the ideal temperature before and during application is between 15 and 25 °C.

The temperature of the substrate must be at least 3 °C above the current dew point temperature.

For the installation of a base layer, mix recycled rubber granules (normally SBR) and CONIPUR 322 in a ratio of 100:21 (by weight) using a compulsory mixer rotating at approximately 300 rev/min, for 3-5 minutes. Ensure that

the mixer reaches the sides and bottom areas of the mixing vessel.

The mix is applied using a specially designed paving machine. In order to achieve good surface strength, the rubber granule mat must be compacted thoroughly. If necessary, the surface has to be re-rolled.

Special attention must be paid to the construction joints, which must be carefully reworked using a smoothing trowel. If a joint connection has to be made to an already cured section, it must be primed beforehand with

CONIPUR 322 or CONIPUR 72 and reworked thoroughly. Otherwise **flaws** will develop at the **joints**, which can lead later on to **cracks** in the surface.

The **reduction** of the **binder ratio** is **not** recommended, as the **mechanical characteristics decrease** and might even fall below the requirements of the relevant standard (DIN V 18035-6 or EN 14877).

The **smoothing** of the surface **during application** of the binder-granule mix can be facilitated by using **SMOOTHING AGENT**, which is used to moisten the tools. It is a very pure product with only a slight odour. As the tools are only moistened, the consumption can be very low.

The **granules** must be **dry**, otherwise, humidity acts as a catalyst and accelerates the chemical reaction with the binder, causing the binder to foam, the formation of a non-homogeneous layer and of poor mechanical properties.

The ambient temperature, the temperature of the material and the substrate and the humidity of the air are of decisive importance for the curing of CONIPUR 322. At low temperatures and humidity, the speed of reaction is reduced resulting in a longer pot life, re-coating interval and open time. At the same time, the viscosity increases requiring increased mixing time and a higher consumption. At high temperatures and humidity, the speed of reaction is accelerated and the contrary is true.

When the **humidity** is **below 40 %** it may be necessary to **carefully mist spray** the mat with water to avoid unacceptable cure times, which might impair the quality of the elastic layer.

At **low temperatures**, curing can be slightly **accelerated** by use of catalyst. The quantity of catalyst needed depends on the ambient conditions and has to be defined at the job site and may vary daily. As a guide, 0.2 %w/w of ACCELERATOR 10 or 12, as a percentage of the binder, may be used.

For the installation of the **granule mats**, we recommend the use of **granules** that have been **tested** and have proven to be **suitable** for this type of installation.

In order to achieve the elasticity required in accordance with EN 14877 or WA specifications, the granule size recommended in the system data sheets must be used.

### Cleaning agent

Re-usable tools must be cleaned carefully with CLEANER 40 or other suitable solvents (e.g. butyl acetate) before curing has taken place. Never use water or alcoholic solvents as cleaners on uncured materials!

### Substrate condition

Substrates to be coated have to be dry, load bearing, free of loose particles and substances which impair adhesion such as oil, grease, paint or other contaminants.

The **bound subbase** must fulfil the requirements according to DIN V 18035-6 in regards of compaction, flatness, gradients and permeability.

On **concrete**, it is necessary to apply CONIPUR 74 or CONIPUR 4710 (solvent free) (see product data sheets) before installing in situ rubber granule mats. The bond strength of the substrate must be at least 1.0 N/mm<sup>2</sup> (check with an approved pull off tester e.g. Herion, load rate 100 N/s).

The **residual moisture** of the substrate must not exceed **4 %** (check with CM equipment), which corresponds to maximum 75 % relative humidity according to ASTM F 2170. If using the calcium chloride test, the maximum allowable vapour emissions is 4.0 lbs. as per ASTM F 1869.

On **asphalt**, primer CONIPUR 70 must be used. Never use CONIPUR 74 on asphalt.

The **temperature** of the **sub-base** must be at least **3 °C** above the current dew point temperature.

### Pack size

CONIPUR 322 is supplied in 20 kg pails, 220 kg drums and 1'050 kg totes.

### Colour

brownish

### Storage

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

Do not expose the drums to direct sunlight.

Before use, please see "best before" date on the packing unit.

### Safety precautions

CONIPUR 322 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 322 meets the requirements of the EC directive 2004/42/EC.