

CONIPUR 6020

Moisture Curing Single Component PUR Binder for Paver Installation

Product description

CONIPUR 6020 is a moisture curing, solvent free, unpigmented PUR binder of medium viscosity.

Fields of application

CONIPUR 6020 is a moisture curing binder used for the in-situ installation with a paver of the base layers of multipurpose surfaces and playgrounds for recycled rubber granules.

CONIPUR 6020 is also suitable for the installation of layers with coloured EPDM granules, however the binder is yellowing, so colour changes must be expected.

Properties

CONIPUR 6020 is easily mixed with the rubber granules and the run-off from the granules is minimized.

Due to the special field of application CONIPUR 6020 features a long processing time, so that the joints can be adjusted easily for a rather long time.

Under the influence of sunlight, CONIPUR 6020 on the surface will turn yellow in a short time, which does not affect the mechanical properties of the material.

With certain colours of EPDM granules, this can lead to a colour change on the surface due to the formation of mixed colours. Thus, with blue surfaces, a green colouring is to be expected, in case of grey surfaces an evident yellow colouring. The yellowing of the binder is normally not evident for green, yellow, red or black granules, so that the use of UV-stable binder or the application of a top coat is not necessary.

Depending on the weather conditions, this colour change takes place in the first hours to days and loses its intensity again in normal use due to wear and weathering of the minimal thin layer of binder on the top granules after a few weeks.

To avoid this (temporary) discoloration, we recommend the use of our aliphatic binder CONIPUR 4090 (installation by hand) or CONIPUR 6090 (paver installation). Please refer to the document "EPDM binder type".

Technical Data

Density	DIN 53217, at 23 °C	g/cm ³	approx. 1.1
Viscosity	at 23 °C	mPas	approx. 3800
NCO content	DIN 53185	%	approx. 10
Ready for a) foot traffic b) paver installation	at 23 °C / 60 % rel. hum.	h	a) approx. 16 b) approx. 24
Substrate and application temperature	minimum	°C	15
	maximum	°C	30
Permissible relative humidity	minimum	%	40
	maximum	%	75
<i>Above figures are guide values and may not be used as a base for specifications!</i>			

Application method

CONIPUR 6020 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.

The **quantity** of **binder** needed also **depends** on the grain size and type of granules used.

For a granule size of 2-6 mm (for the base layer) we recommend 10-14 % binder, for a granule size of 1-4 mm we recommend 14-19 % binder.

For the installation of a base layer, **mix** recycled rubber **granules** (normally SBR) and **CONIPUR 6020** 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 homogenous 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, roll the surface additionally.

For an **EPDM surface**, **20 %** of CONIPUR 6020 is added to the EPDM granules (grain size 1-3.5 mm). The application process is the same as for recycled rubber granules.

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 6020 or CONIPUR 72 and reworked thoroughly. Otherwise **weak points** will develop at the **joints**, which can lead later on to **cracks** in the surface.

The **smoothing** of the joints **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 **reduction** of the **binder ratio** is **not** recommended, as the **mechanical characteristics decrease** and might even fall below the requirements of the relevant standard.

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 6020. 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.

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 properties required in accordance with the relevant standard, the quantities and granulate sizes defined 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/mm² (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 **substrate** must be at least **3 °C** above the current dew point temperature.

Pack size

CONIPUR 6020 is supplied in 220 kg drums or in IBCs with 1'050 kg.

Colour

yellowish

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 pail / drum.

Safety precautions

CONIPUR 6020 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 6020 meets the requirements of the EC directive 2004/42/EC.