

# CONIPUR 224 FL

## Flame Retardant, Two Component, Self-Levelling PUR Coating for Sports Halls

### Product description

CONIPUR 224 FL is a two component, solvent free, self-levelling and flame retardant PUR coating.

### Fields of application

CONIPUR 224 FL is used as a coating for indoor sports halls on resilient base layers, such as pre-fabricated rubber granule mats, PUR foam mats or polyethylene foam on top of hard PUR intermediate layers.

Depending on the system structure, point elastic, mixed elastic or combined elastic sports hall surfaces can be installed.

### Properties

CONIPUR 224 FL exhibits high mechanical properties, good self-levelling and excellent de-aeration properties.

The product shows high elasticity, noise dampening and high resistance to impact at a medium hardness.

To improve the chemical resistance and light and colour stability, a sealing lacquer has to be applied on top of CONIPUR 224 FL.

### Technical Data

<b>Mixing ratio</b>	in parts by weight		100 : 23.8
<b>Density</b>	component A, at 23 °C	g/cm <sup>3</sup>	approx. 1.37
	component B, at 23 °C	g/cm <sup>3</sup>	approx. 1.20
	mix, at 23 °C	g/cm <sup>3</sup>	approx. 1.34
<b>Viscosity</b>	component A, at 23 °C	mPas	approx. 3700
	component B, at 23 °C	mPas	approx. 200
	mix, at 23 °C	mPas	approx. 2600
<b>Pot life</b>	at 12 °C	min	approx. 47
	at 23 °C	min	approx. 35
	at 30 °C	min	approx. 25
<b>Re-coating interval ready for foot traffic</b>	at 23 °C and 50 % relative humidity	h	approx. 8
<b>Substrate and application temperature</b>	minimum	°C	10
	maximum	°C	30
<b>Permissible relative humidity</b>	maximum	%	75
<b>Shore A hardness</b>	after 24 h, at 23 °C and 50 % relative humidity		65
	after 28 d		85
<b>Tensile strength</b>	DIN 53504	N/mm <sup>2</sup>	5.0
<b>Elongation at break</b>	DIN 53504	%	170
<b>Tear strength</b>	DIN 53515	N/mm	21.0

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

### Application method

CONIPUR 224 FL is supplied in the correct proportions of component A (resin) and component B (hardener).

The optimal **temperature** of the material 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 **A-component** has to be **pre-mixed**, to secure a **homogeneous** material.

After the pre-mix, pour component B into component A and ensure that pail containing component B is emptied completely.

To achieve a homogenous mix, thoroughly mix with a slowly rotating mixing device at about 300 rev/min. Ensure that the mixing device reaches side and bottom areas of the mixing vessel. The **mixing** process needs to take **at least 2 minutes** and must be performed until the blend is **homogenous** and streak free.

Pour the mix into another **clean** pail and mix it again for an additional minute.

CONIPUR 224 FL is **applied** to the pre-treated substrate using an **aluminium squeegee**.

### Important

Due to the comparatively high viscosity of the flame retardant coating the application **must** be done with a notched aluminium **squeegee**.

The use of a pen-shaped or a rubber squeegee is not recommended, as the coating can not be distributed evenly with these tools. This in turn will result in an uneven surface ("waves", traces of the squeegees) which will not be levelled by the application of the following coating / top coat.

When working at the recommended ambient and substrate temperatures, it is *not* necessary to flame or to spike roll the coating in order to obtain a bubble free and well levelled surface.

Working life and curing time of CONIPUR 224 FL 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.

To fully cure the material, the substrate and working temperature must not fall below the minimum.

After application, the material must be protected from direct contact with water for approx. 12 hours (at 15 °C). Within this period, contact with water can cause foaming on the surface of the coating.

### 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 224 FL is usually applied to pre-fabricated [rubber granule mats](#) (previously sealed with pore sealer CONIPUR 220 FL), [PUR foam mats](#) or hard [PUR coatings](#) (CONIPUR 249 FL).

In order to ensure a **100 % seal** of the elastic layers, our [pore sealer](#) CONIPUR 220 FL must be applied in **two coats**, prior to the coat of CONIPUR 224 FL. This eliminates the possibility of bubbles in the coating.

In case of coatings or pore sealers **older** than **3** days, grinding and cleaning with a 1:1 mixture of water: acetone of the surface is mandatory. After thoroughly drying a coating with CONIPUR 224 (N) is possible.

For application on [other substrates](#), e.g. wood, previous [tests](#) have to be performed in order to determine if or which primer is needed.

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.

The [temperature](#) of the [substrate](#) must be at least **3°C** above the current dew point temperature.

If the thickness of the rubber [granule mat](#) exceeds **10mm** or the sports hall is for [multipurpose](#) use, an additional reinforcing fabric must be used to increase the impact resistance and prevent cracking. Fabrics are to be fixed to the resilient layer using CONIPUR 220 FL (see product data sheet).

CONIPUR 224 FL can also be used for the [re-topping](#) of existing sports hall surfaces. As a rule, crack free surfaces must be ground and cleaned thoroughly using an alkaline cleaning agent. After drying, CONIPUR 224 FL can be applied.

If there are small cracks in the surface, apply a reinforcing fabric using CONIPUR 220 FL to adhere it to the surface. Depending on the surface condition extra preparation might be necessary. [Preliminary tests](#) must be carried out prior to the re-topping.

### Pack size

CONIPUR 224 FL is supplied in 25 kg working packs. Components A and B are supplied in the correct proportions and delivered separately.

### Colour

grey

**Important:** Please note that the CONICA [top coat](#) has sufficient [coverage strength](#) on top of the grey coloured CONIPUR 224 FL (for further advices please contact Technical Service CONICA).

### Storage

Store in unopened pails 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 224 FL 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 224 FL meets the requirements of the EC directive 2004/42/EC.