

# CONIPUR PGI

## Two Layer, Water Impermeable Fall Protection for Indoor Playgrounds

**Field(s) of application** fall protection surface for children's playgrounds

**System data**

		product	consumption	application	remarks
<b>Primer</b>	for asphalt	<b>CONIPUR 70</b>	0.15 kg/m <sup>2</sup>	airspray or roll	In case of residual moisture > 4% (e.g. early age concrete), CONIPUR 3785 <b>must</b> be used as a primer.  A surface preparation by light blasting or grinding surface removal (incl. the necessary post-treatment) is usually required. For further details, please refer to our corresponding product data sheet or consult our Technical Service.
	for concrete	<b>CONIPUR 4710</b> (CONIPUR 73)  broadcasted with oven dried sand	0.20 kg/m <sup>2</sup>	airspray or roll	
<b>Base layer</b>		<b>CONIPUR 4020</b>  recycled rubber granules, 2-6 mm  When using a mixture of rubber granules and fibres please do contact our Technical Service  For paver installation CONIPUR 6020 is used	3.9 kg/m <sup>2</sup>  32.5 kg/m <sup>2</sup>	trowel	Depending on <b>availability</b> also larger granules, shred, crumb and/or fibres can be used which might have an impact on the recommended binder consumption.  For other shock pad <b>thicknesses</b> (± 50 mm) the amounts of binder and rubber can be adapted proportionally.  For questions or more information, please contact our Technical Service.
		<b>CONIPUR 4020</b>  <b>CONIPUR EPDM</b> granules, 1-3.5 mm  For <b>paver</b> installation CONIPUR 6020 is used  Alternative binders: highly UV stable binders CONIPUR 4080 (application by hand) resp. CONIPUR 6080 (paver installation)  UV stable binders CONIPUR 4090 (application by hand) resp. CONIPUR 6090 (paver installation)	2.3 kg/m <sup>2</sup>  11.5 kg/m <sup>2</sup>	Trowel	CONIPUR 4020 is an aromatic binder, which will yellow when exposed to sun light.  For sensitive colours of the granules (e.g. blue, beige, grey) we recommend to use CONIPUR 4080 (highly UV resistant) or CONIPUR 4090 (UV stable, aliphatic).  For further information see "Playground EPDM – Binder Type".
<b>Pore Sealer</b>	1 <sup>st</sup> layer	<b>CONIPUR 4480</b>	0.80 kg/m <sup>2</sup>	straight edged trowel, paint roller	Depending on the porosity and the compacting of the surface the consumption of the pore sealer may vary.
	2 <sup>nd</sup> layer	<b>CONIPUR 4480</b>	0.30 kg/m <sup>2</sup>		
<b>Sealing lacquer</b>		<b>CONIPUR 3202 W</b> (colourless)	0.13 kg/m <sup>2</sup>	paint roller	

**Total thickness of the system** approx. 50 + 12 mm

Depending on the HIC value and the required stability of the systems, other thicknesses for base and top layer might be chosen. For high HIC values, the thickness of the base layer may exceed 100 mm.

As HIC values largely depend on the installation, neither the values nor test certificates are given here. As your partner, CONICA offers you HIC measurements of your samples in our laboratory. Please contact your responsible sales manager or our Technical Service.

Our test reports concerning reaction to fire, emissions and HIC measurements are based on a slightly different system built up. Used components / quantities as well as thickness (es) of the layer(s) vary from the above described system built up. In order to use the test reports, components and quantities as mentioned in the relevant test report(s) need to be installed!

### Preparation

Substrates to be coated have to 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.

In addition, the subbase must fulfil the relevant standards with special reference to flatness, gradients, thickness and load bearing capacity.

See also "Playground – subbase".

The moisture level of concrete must not exceed 4 % (check with CM equipment), which corresponds to maximum 75 % relative humidity according to ASTM F 2170.

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

The temperature of the products before and during application is best between 15 and 25 °C.

### Consumption

For the different grain sizes and thicknesses of the elastic layers we recommend the following consumptions:

SBR Layer in mm	qty SBR in kg / m <sup>2</sup>	quantity of binder in kg / m <sup>2</sup> grain size	
		1 - 4 mm	2 - 6 mm
30	19.5	3.2	2.4
40	26.0	4.2	3.2
50	32.5	5.2	3.9
60	39.0	6.3	4.7
70	45.5	7.3	5.5
80	52.0	8.4	6.3
90	58.5	9.4	7.1
100	65.0	10.4	7.8
110	71.5	11.5	8.6

The quantities specified are mere recommendations and do not constitute guidelines. In case of other rubber types (with fibres, different shape of the granules, different grain size, etc.) the amount of binder must be adjusted.

### Application

Apply primer CONIPUR 4710 or CONIPUR 73 on the pre-treated concrete substrate (in case of asphalt CONIPUR 70 is used) using a paint roller or airless spray. Avoid puddling!

Oven dried sand (grain size 0.3-0.8mm) is broadcasted into the still wet primer in order to improve adhesion of the following layer. For porous substrates, the primer has to be applied in two coats, only the second coat to be broadcasted with oven dried sand.

Apply only primer in areas where the following layer will be installed within the next 24 hours (concrete 8 hours). If the application of the base layer does not take place within 24 hours (concrete 8 hours), a new coat of primer has to be applied in order to avoid poor adhesion.

If the surface is soiled (dust, sand), the surface must be cleaned and CONIPUR 72 must be applied after it has dried completely.

Allow the solvent to evaporate and the base course to become sticky, before applying the following layer.

Mix the rubber granules, shred, crumb and/or fibres with CONIPUR 4020 using a compulsory mixer. Install the base mat at a consistent density to the specified thickness using a hand trowel and a screed.

Let the base layer cure (harden) so that foot traffic or equipment do not leave any indentations. The curing process depends on temperature and humidity. If there is sufficient humidity in the air, curing is normally finished overnight.

The maximum re-coating interval of the elastic base layer is 48 hours. In case the EPDM layer is installed after this interval, the surface has to be primed with CONIPUR 72.

If the elastic layer is soiled (dust, sand), the surface must be cleaned and CONIPUR 72 must be applied after it has dried completely.

Mix the CONIPUR EPDM granules with a share of 20 % by weight of CONIPUR 4020 using a compulsory mixer. Install the top layer using a hand trowel and a screed.

For sensitive colours of the granules we recommend to use CONIPUR 4080 (highly UV-stable) or CONIPUR 4090 (UV

stable, aliphatic). For more information, please refer to "Playground EPDM – Binder type".

For the stability, it is important to achieve a homogeneous, well compacted surface with a **minimum** thickness of **12 mm**.

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

Allow the EPDM layer to cure (harden). The curing process depends on temperature and humidity. Do not allow **foot traffic** until the surface is sufficiently cured. If there is enough humidity in the air, curing is normally finished overnight.

If the surface is **soiled** (dust, sand), the surface must be cleaned and CONIPUR 72 must be applied after it has dried completely.

**Seal** the **pores** of the EPDM layer with CONIPUR 4480 using a straight edged trowel or squeegee. Afterwards roll the whole surface with a paint roller to obtain a homogeneous image.

This step has to be **repeated** after overnight cure to ensure a 100% closing of the pores and obtain visually perfect surface.

Apply top coat CONIPUR 3202 W using "Microtex" rollers; roll out well to eliminate roller marks.

Avoid overlapping as far as possible. Accelerated curing by "ventilation" because of open windows/doors/gates needs to be avoided

## Remarks

For further information, please refer to the technical data sheets of the products or contact our Technical Service.

For application, conditions please see our "General Application Guidelines for Sports Systems Indoor and Outdoor".