

# CONIPUR ISP

## Impermeable Structural Spray Coating System, WA Certified

### Fields of application

Athletic tracks and school playgrounds

### System data

		Product	Consumption	Application	Remarks
Primer	for asphalt	<b>CONIPUR 70</b>	0.15 kg/m <sup>2</sup>	spray	
	for concrete	<b>CONIPUR 74</b>	0.20 kg/m <sup>2</sup>	spray	
		CONIPUR 74 is used for pre-fabricated concrete parts, e.g. for curb stones and drainage systems. Otherwise, CONIPUR 3785 has to be used (please see Technical Data Sheet for details or consult our Technical Service).			
Base mat	11 mm	<b>CONIPUR 322</b>	1.3 kg/m <sup>2</sup>	paver	
		Recycled rubber granules, 1 - 4 mm	7.2 kg/m <sup>2</sup>		
Pore sealer		<b>CONIPUR 2400</b> <b>(CONIPUR 203)</b>	1.0 – 1.4 kg/m <sup>2</sup> (1,5 - 1,8 kg/m <sup>2</sup> )	rubber / metal wiper (or paver)	Depending on the temperature and porosity of the base layer, the consumption may vary.
		Alternatively, CONIPUR 210 can be used in combination with EPDM powder. The powder must be checked for compatibility before use. Mixing ratio PUR : EPDM powder approx. 65 : 35 – depending on the quality of the EPDM powder and the temperatures EPDM powder can be added up to a ratio of 70 : 30 PUR : EPDM powder			
Spray coating	2 mm with solvent free coating (1 component)	<b>CONIPUR 2640</b>	1.0 kg/m <sup>2</sup>	spray (two coats)	When using the solvent free CONIPUR 2640, EPDM powder is normally not necessary
		<b>CONIPUR EPDM granules</b> , 0.5-1.5 mm	0.67 kg/m <sup>2</sup>		
	or 2 mm standard coating	<b>CONIPUR 217</b> <b>(CONIPUR 216/322)</b>	1.0 kg/m <sup>2</sup> (0.33/0.67 kg/m <sup>2</sup> )	spray (two coats)	Please pay attention to the CONICA recommendation on the rubber granule size.  At low temperatures, it may be possible to eliminate the rubber powder.
<b>CONIPUR EPDM granules</b> , 0.5-1.5 mm	0.67 kg/m <sup>2</sup>				
<b>CONIPUR EPDM powder</b> , 0.0-0.5 mm	0.04 kg/m <sup>2</sup>				
Sealing lacquer		<b>CONIPUR 2200</b> <b>(CONIPUR 2210)</b>	0.3 kg/m <sup>2</sup>	spray (two coats)	CONIPUR 2210 with slip resistant properties
Line paint		<b>CONIPUR 8150</b>	20-30 g/m	spray	

### Total thickness of the system

approx. 13 mm (11 + 2 mm)

## Selected technical properties

		Result	Requirement	Remarks
Based on EN 14877 requirements	Force reduction	≥ 35 %	25-60 %	Data taken from the test report according to EN 14877
	Modified vertical deformation	≤ 2.1 mm	≤ 3 mm	
	Permeability	impermeable		
	Resistance to wear	≤ 0.7 g	≤ 4 g	
	Tensile Properties	tensile strength elongation at break	≥ 0.56 N/mm <sup>2</sup> ≥ 41 %	

Depending on the substrate, rubber source (particle size) and application conditions or in case of using alternative products, results vary.

### Preparation

The bound base layer must fulfil the [relevant standards](#) with special reference to flatness, gradients, thickness, load bearing capacity and water permeability.

Base courses to be coated have to be firm, dry and free of loose and brittle particles and substances which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants.

The [tear strength](#) of the base course must be at least [1.0 N / mm<sup>2</sup>](#).

The [residual moisture](#) 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.

The [temperature](#) on the [base course](#) must be at least [3 °C](#) above the current dew point temperature.

The optimal [temperature](#) of the [material](#) before and during application is between [15](#) and [25 °C](#).

### Application

Apply [CONIPUR 70](#) onto the pre-treated water [permeable asphalt](#) sub-base using airless spraying equipment. Apply only primer in areas where the base layer will be installed within the next 24 hours.

For [precast concrete parts](#) such as curbs and drainage systems, [CONIPUR 74](#) is applied preferably with a low-pressure airless device (for further information see product data sheet).

Allow the solvent to evaporate and the base course to become [sticky](#), before applying the following layer. Depending on the prevailing humidity of the air, this is the case after about two hours.

Apply only primer in areas where the following layer will be installed within the next [12 hours](#). If the application of the base layer does [not](#) take place [within](#) the [12 hours](#) period, a new coat of primer has to be applied in order to avoid poor adhesion.

[CONIPUR 3785](#) must be used for [fresh concrete surfaces](#) such as shot put ring surrounds, net post foundations, pole vault entry boxes, take-off boards, etc.

CONIPUR 3785 is applied by rolling, or better with a rubber squeegee and by uniform rolling or brushing on the previously prepared substrate. Puddling or thick layers are to be avoided. For the first layer the [consumption](#) must be least [0.5 kg/m<sup>2</sup>](#) - do [not](#) sand.

The second layer of CONIPUR 3785 must be applied after at least 12 hours, but no more than 48 hours. If this is not possible, the substrate must be pretreated again (sanding or shot blasting).

To ensure the adhesion of the following polyurethane-based layer, the [2nd layer](#) of CONIPUR 3785 (consumption min. 0.35 kg/m<sup>2</sup>) must be [sprinkled](#) with [oven-dried quartz sand](#) (grain size 0.3-0.8 mm). Unbound quartz sand must be removed after curing (see product data sheet for further information).

Mix the recycled rubber granules (grain size 1-4 mm) with [CONIPUR 322](#) using a specially designed mixer. Apply the mixed material with a specially designed paver onto the primed surface. Let the [base layer](#) cure.

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.

Close the pores of the base layer with [CONIPUR 2400](#) (see product data sheet) by using a rubber or metal wiper or a specially equipped paving machine.

If the pore-sealed surface was exposed to rain, if it was **wet** or if the recoating **interval** of 24 hours was **exceeded**, an **adhesion test** must be carried out or primer CONIPUR 72 (approx. 50 - 80 g/m<sup>2</sup>) must be applied to ensure the adhesion of the following layer.

After curing, prepare and apply the **spray-coat**. Pre-mix **CONIPUR 2640**, weigh out the necessary quantity, add CONIPUR EPDM granules (grain size 0.5 – 1.5 mm), mix until homogenous and fill the mixed material into a spray machine, specifically designed for spraying this kind of mixture. Spray the mix onto the surface in **two coats** from **opposite** directions to obtain the specified coverage rate.

CONICA **SMOOTHING AGENT** can be used as a **thinner** for the spray coating. This product is VOC free and has little odour. We recommend a maximum of 1.5% SMOOTHING AGENT on the finished mixture as a thinner for the second spray pass.

The preparation and application when using CONIPUR 217 (or CONIPUR 216/322) is the same, only CONIPUR EPDM powder is added to increase the viscosity.

**Seal** the surface with **CONIPUR 2200** or CONIPUR 2210 (anti-skid).

Sealing improves UV resistance, extends the life time and simplifies maintenance (easier and, in the long term, more cost-effective cleaning).

The top coat is sprayed in **two coats** from **opposite** directions with an approximate consumption of total **0.30 kg/m<sup>2</sup>**.

Further information and application instructions are shown in the product data sheet.

### Remarks

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

For application conditions, our “General Application Guidelines for Sports Systems Indoor and Outdoor” apply.

Special pavers, discontinuous mixers and spray machines such as PlanoMatic, MixMatic and StructureMatik from SMG, Vöhringen / Germany are used for the on-site installation of rubber granulate mats and for the application of the structure spray coating.