



# CONIPUR SW – CONIPUR SW FL – CONIPUR SW XT

## WA Certified Sandwich System

### Fields of application

top class sports and athletic tracks

### System data

		Product	Consumption	Application	Remarks
Primer	for asphalt	<b>CONIPUR 70</b>	0.15 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.
	for concrete	<b>CONIPUR 74</b>	0.20 kg/m <sup>2</sup>	spray	
Base layer	10 mm	<b>CONIPUR 322</b>	1.2 kg/m <sup>2</sup>	paver	
		recycled rubber granules, 1 - 4 mm	6.5 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 CONIPUR 210 can be added up to a ratio of 70 : 30 PUR : EPDM powder
Primer		<b>CONIPUR 72</b>	50-80 g/m <sup>2</sup>	spray	If the adhesion test is not satisfactory, please contact our technical service.  If the pore-sealed surface was exposed to rain, if it was <b>wet</b> or if the recoating <b>interval</b> of 24 hours was <b>exceeded</b> , an <b>adhesion test</b> with primer CONIPUR 72 (approx. 50 - 80 g/m <sup>2</sup> ) must be carried out.
Coating	top layer	<b>CONIPUR 210</b>	2.2 kg/m <sup>2</sup>	notched squeegee	Net consumption. For <b>track surfaces</b> , a <b>total amount</b> of approx. <b>4.2 kg/m<sup>2</sup></b> granules must be calculated incl. the excess quantity.  For <b>smaller surfaces</b> , which are installed within <b>one day</b> , the <b>excess</b> quantity of granules must be <b>increased</b> accordingly.  <b>***</b> The consumption and excess quantity is the same
		<b>CONIPUR EPDM</b> granules, 1-3.5 mm	2.8 kg/m <sup>2</sup> (net consumption)	broadcast	
		Depending on the climatic conditions and the surface to be coated, the excess portion may possibly be reduced.  For <b>CONIPUR SW FL</b> (flame retardant) <b>CONIPUR 210 FL</b> and <b>CONIPUR EPDM FL</b> must be used in this layer, only then will the system achieve the fire classification Bfl-s1 <b>***</b> . The coating and the granules contain flame retardants.			
Sealing lacquer	optional	<b>CONIPUR 2200</b> ( <b>CONIPUR 2210</b> )	0.30 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	
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**Total thickness of the system** approx. 14 mm (10 + 4 mm)

Instead of the normal layer thickness, the top layer (**wear coat**) can also be installed with a **higher layer thickness, CONIPUR SW XT**. The higher wear layer corresponds to the WA recommendations, which were revised in 2019. This system structure has been tested in accordance with the WA and EN 14877 specifications and corresponds to the specifications.

The **top layer** is then built up as follows:

Coating	top layer	<b>CONIPUR 210</b>	2.75 kg/m <sup>2</sup>	notched squeegee	<p>For <b>track surfaces</b>, a total amount of approx. <b>5.0 kg/m<sup>2</sup></b> EPDM granules must be calculated incl. the excess quantity. For <b>smaller surfaces</b>, which are installed within <b>one day</b>, the <b>excess</b> quantity of EPDM granules must be <b>increased</b> accordingly.</p> <p><b>***</b> The consumption and excess quantity is the same</p>
		<b>CONIPUR EPDM</b> granules, 1-3.5 mm	3.5 kg/m <sup>2</sup> (net consumption)	broadcast	
<p>Depending on the climatic conditions and the surface to be coated, the excess portion may possibly be reduced.</p> <p>For <b>CONIPUR SW FL</b> (flame retardant) <b>CONIPUR 210 FL</b> and <b>CONIPUR EPDM FL</b> must be used in this layer, only then will the system achieve the fire classification Bfl-s1 <b>***</b>. The coating and the granules contain flame retardants.</p>					

**Total thickness of the system** approx. 15 mm (10 + 5 mm)

### Selected technical properties for the system CONIPUR SW 10 + 4 mm

		Result	Requirement	Remarks
Based on EN 14877 requirements	Force reduction	≥ 35 %	25-50 %	Data taken from the test report according to EN 14877
	Modified vertical deformation	≤ 2.0 mm	≤ 3 mm	
	Permeability	impermeable		
	Resistance to wear	≤ 3 g	≤ 4 g	
	Tensile Properties	tensile strength elongation at break	≥ 0.6 N/mm <sup>2</sup> ≥ 55 %	

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

## Selected environmental data

		Result	Requirement	Remarks
Environmental compatibility	EOX	≤ 22 mg/kg OS	100 mg/kg OS	
	DOC	24h ≤ 46 mg/l	≤ 50 mg/l	Data taken from suitability test according to DIN V 18035-6
	Heavy metals	conform		
	Smell	no smell		

### 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.

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 1-4mm) 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 (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** or **CONIPUR 203** (see product data sheets) 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 apply coating **CONIPUR 210** (**CONIPUR 210 FL**) with a notched squeegee. Broadcast the surface with dry **CONIPUR EPDM** (**CONIPUR EPDM FL**) granules to excess (grain size 1 - 3.5 mm) before curing takes place. Remove the excess **CONIPUR EPDM** granules (re-use for broadcasted surfaces possible) when the coating has cured.

Optionally, the surface can be sealed with pigmented **CONIPUR 2200** or **CONIPUR 2210** (slip-resistant).

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 please see our "General Application Guidelines for Sports Systems Indoor and Outdoor".

Suitable machinery for installing the in situ base layer is e.g. PlanoMatic and MixMatic from SMG, Vöhringen/Germany.