CONIPUR SW

IAAF Certified Sandwich System

Fields of application top class sports and athletic tracks

System data

		product	consumption	application	remarks
Primer	for asphalt	**CONIPUR 70**	0.15 kg/m²	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).
	for concrete	**CONIPUR 74**	0.20 kg/m²	spray	
Base layer		**CONIPUR 322**	1.4 kg/m²	paver	
		Recycled rubber granules, 1-4 mm	6.5 kg/m²		
Pore sealer		**CONIPUR 203**	1.5 – 1.8 kg/m²	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			
Primer		**CONIPUR 72**	50-80 g/m²	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 wet or if the recoating interval of 24 hours was exceeded, an adhesion test with primer CONIPUR 72 (approx. 50 - 80 g / m²) must be carried out.			
Coating	Top layer	**CONIPUR 210** (CONIPUR 221)	2.2 kg/m² (2.3 kg/m²)	notched squeegee	For track surfaces, a total amount of approx. 4.2 kg/m² EPDM granules must be calculated incl. the excess quantity. For smaller surfaces, which are installed within one day, the excess quantity of EPDM granules must be increased accordingly. For further assistance please contact our Technical Service.
		CONIPUR EPDM granules, 1-3.5 mm	2.8 kg/m² net consumption	Broadcast	
		Depending on the climatic conditions and the surface to be coated, the excess portion may possibly be reduced.			
Sealing lacquer	optional	**CONIPUR 2200** (CONIPUR 2210)	0.30 kg/m²	spray (in 2 coats)	CONIPUR 2210 with anti-skid properties
Line paint		**CONIPUR 8150**	20-30 g/m	spray	

Total thickness of the system approx. 13 mm (10 + 3 mm)

Selected technical properties

		conditions	result	requirement	remarks
IAAF Specification	Force reduction	10 °C 23 °C 40 °C	35 % 38 % 39 %	35-50 %	data taken from IAAF report of synthetic surface product test
	Modified vertical deformation	10 °C 23 °C 40 °C	1.5 mm 1.8 mm 2.0 mm	0.6-2.5 mm	
	Friction (sliding coefficient)	wet, leather sole	0.54	≥ 0.5 (DIN method) ≥ 47 (TRRL method)	
	Permeability		impermeable		
	Tensile Properties	tensile strength elongation at break	≥ 0.57 N/mm² ≥ 44 %	≥ 0.5 N/mm² ≥ 40 %	
DIN V 18035-6	Standard deformation	0 °C 20 °C 40 °C	0.7 mm 1.0 mm 1.1 mm	0.6-1.8 mm	Data taken from suitability test according to DIN V 18035-6.
	Relative abrasion		3.0	> 1.0	
	Spike resistance		Class 1	Class 1	
	Remaining indentation		0.45 mm	≤ 1.0 mm	
	Ageing	Constant climate with condensation, constant heat (80 °C), combined climate of heat, humidity and light	pass	Pass	
ASTM F 2157-08	Flammability behaviour		pass	pass	Data taken from suitability test according to ASTM F 2157-02
	Classification		Class A		

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

Selected environmental data

		details	result	requirement	remarks
Environmental compatibility according to DIN V 18035-6	EOX		22 mg/kg OS	≤ 100 mg/kg OS	
	DOC	24 h	46 mg/l	≤ 50 mg/l	
	Heavy metals	Lead (Pb)	< 0.0001 mg/l	≤ 0.025 mg/l	Data taken from suitability test according to DIN V 18035-6.
		Cadmium (Cd)	< 0.00002 mg/l	≤ 0.005 mg/l	
		$Chromium_{total}$ (Cr)	< 0.001 mg/l	≤ 0.05 mg/l	
		Chromium VI (CrVI)	< 0.008 mg/l	< 0.008 mg/l	
		Mercury (Hg)	< 0.001 mg/l	≤ 0.001 mg/l	
		Zinc (Zn)	0.3 mg/l	≤ 0.5 mg/l	
		Tin (Sn)	< 0.02 mg/l	≤ 0.04 mg/l	
	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 residual moisture of the concrete 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, (if the base layer is concrete, CONIPUR 74) onto the pre-treated asphalt sub-base using airless spraying equipment. Apply only primer in areas where the base layer will be installed within the next 24 hours.

Allow the solvent to evaporate and the base course to become sticky, before applying the base layer. If the application of the base layer does not take place within the 24 hours period, a new coat of primer has to be applied in order to avoid poor adhesion.

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. The curing process depends on temperature and humidity.

Close the pores of the base layer with CONIPUR 203 (see system data) 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 with primer CONIPUR 72 (approx. 50 - 80 g / m2) must be carried out. If the adhesion test is not satisfactory, please contact our technical service.

After curing apply coating CONIPUR 210 with a notched squeegee. Broadcast the surface with dry CONIPUR EPDM granules to excess (grain size 1 - 3.5 mm) before curing takes place. Remove the excess CONIPUR EPDM granules when the coating has cured.

Optionally, the surface can be sealed with pigmented CONIPUR 2200 or CONIPUR 2210 (anti-skid), sprayed in two coats, from opposite directions.

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.

CONICA AG
Industriestr. 26
8207 Schaffhausen
Switzerland

Tel.: +41 52 644 3600
Fax: +41 52 644 3699
info@conica.com
www.conica.com