CONIPUR SP

IAAF Certified Structural Spray Coating System

Fields of application athletic tracks, multipurpose and school sports

System data

		product	consumption	application	remarks
Primer	for asphalt:	**CONIPUR 70**	0.15 kg/m²	spray	
	for concrete:	**CONIPUR 74**	0.20 kg/m²	spray	
Base layer		**CONIPUR 322** (CONIPUR 326)	1.7 kg/m²	paver	
		Recycled rubber granules, 1-4 mm	8.0 kg/m²		
Spray coating	Top layer	**CONIPUR 217** (CONIPUR 216/322)	1.2 kg/m² (0.4/0.8 kg/m²)		
		CONIPUR EPDM granules, 0.5-1.5 mm	0.8 kg/m²	spray (in 2 coats)	Please pay attention to the CONICA recommendation on the EPDM particle size.
		CONIPUR EPDM powder, 0.0-0.5 mm	0.05 kg/m²		At low temperatures it may be possible to eliminate the rubber powder.
Sealing lacquer	optional (for most colours)	**CONIPUR 2200** (CONIPUR 2210)	0.25-0.30 kg/m²	spray (in 2 coats)	In case of sensitive colours (e.g. blue, grey), it is necessary to seal the surface with pigmented CONIPUR 2200 or CONIPUR 2210 in order to increase the colour stability.
Line paint		**CONIPUR 8150**	20-30 g/m	spray	

Total thickness of the system approx. 13 mm

Selected technical properties

		conditions	result	requirement	remarks
IAAF Specification	Force reduction	10 °C 23 °C 40 °C	35 % 38 % 40 %	35-50 %	Data taken from IAAF test report.
	Modified vertical deformation	10 °C 23 °C 40 °C	1.5 mm 1.8 mm 2.1 mm	0.6-2.2 mm	
	Friction (sliding coefficient)	wet, leather sole	0.55	≥ 0.5 (DIN method) ≥ 47 (TRRL method)	
	Tensile Properties	tensile strength elongation at break	1.03 N/mm² 102 %	≥ 0.4 N/mm² ≥ 40 %	
DIN V 18035-6	Standard deformation	0 °C 20 °C 40 °C	0.7 mm 0.9 mm 1.0 mm	0.6-1.8 mm	Data taken from suitability test according to DIN V 18035-6.
	Relative abrasion		3.8	> 1.0	
	Spike resistance		Class 1	Class 1	
	Remaining indentation		0.4 mm	≤ 1.0 mm	
	Permeability		0.039 cm/s	0.01 cm/sec	
	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 ASTM test report. Class A is the best possible classification for athletic track systems.
	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	DOC	48 h	7	≤ 20	Data taken from suitability test according to DIN V 18035-6.
	Heavy metals	Lead (Pb) Cadmium (Cd) Chromium$_{total}$ (Cr) Chromium VI (CrVI) Mercury (Hg) Zinc (Zn) Tin (Sn)	< 0.005 mg/l < 0.0005 mg/l < 0.005 mg/l < 0.008 mg/l < 0.0002 mg/l 0.8 mg/l < 0.005 mg/l	≤ 0.04 mg/l ≤ 0.005 mg/l ≤ 0.05 mg/l ≤ 0.008 mg/l ≤ 0.001 mg/l ≤ 3.0 mg/l ≤ 0.05 mg/l /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 moisture level on 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.

Application

Apply CONIPUR 70, (if the base course is concrete, CONIPUR 74) onto the pre-treated asphalt base course 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 rubber granules and CONIPUR 322 using a specially designed mixer. Apply the mix using a specially designed paver, to the primed surface to form the resilient base layer.

The curing process depends on temperature and humidity.

After curing prepare and apply the spray-coat. Thoroughly mix CONIPUR 217 (CONIPUR 216/322), CONIPUR EPDM granules and CONIPUR EPDM powder 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.

If needed seal the surface with pigmented CONIPUR 2200 or pigmented CONIPUR 2210, sprayed in 2 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 and for spraying is e.g. PlanoMatic, MixMatic and StructurMatic from SMG, Vöhringen/Germany.

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