LACK– UND KUNSTSTOFF– CHEMIE GMBH

TECHNICAL INFORMATION

WIEREGEN-D80-Compact

2C-PUR Floor Coating
ZTV-RHD-ST, RHD-pavements

■ APPLICATION FIELDS

WIEREGEN-D80-Compact is used for the production of reaction-resin based thin deck pavements (RHD) on steel substrates according to ZTV-RHD-ST, edition 1999.

■ PRODUCT PROPERTIES

WIEREGEN-D80-Compact is a solvent-free coating material based on two-pack polyurethane. It can be applied quickly and easily and shows good spreading properties, even at low temperatures.
Cured coatings show a very high mechanical resistance.

Test certificates

Test report P 2002 dated 09/02/2000 of Polymerinstitut Forschungsinstitut für polymere Baustoffe Dr. R. Stenner GmbH:

WIEREGEN-D80-Compact fulfils the requirements of the

- Additional Technical Contract Stipulations and Codes of Practice for the Manufacture of Reaction Resin-Bonded Thin Deck Pavements for Use on Steel (ZTV-RHD-ST)
- Technical Terms of Delivery (TL-RHD-ST)
- Technical Testing Instructions (TP-RHD-ST)

for reaction-resin based thin deck pavements on steel for

- Pavements (filled and sanded with chrome-ore slag)
- Pedestrian footways, cycle paths, servicing cat-walks (filled and sanded with quartz sand)
- Safety kerbs and middle and outer caps (filled and sanded with quartz sand)

■ PRODUCT DATA

	WIEREGEN-D80-Compact	Curing agent
Product number	D80-7201	DX-16
Colour	Grey	
Mixing ratio	5 parts by weight	1 part by weight
Shelf life	In original cans at temperatures of 10 to 25 °C at least:	
	12 months	12 months

Notes referring to Directive 2004/42/EC „Decopaint-Directive“

Subcategory as referred to in Annex IIA	VOC limit values (Phase II from 2010)	Max. VOC content of the product in its ready for use condition (including the max. amount of diluents as given in “Application methods”)
J (“Two-pack reactive performance coatings”) Type SB	500 g/l	< 500 g/l

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■ TECHNICAL DATA

Parameter

Capacity	Value
Adhesive tensile strength on steel following ZTV-SIB 90, Appendix 2	> 6.5 N/mm²
Shore hardness A / D	>90 / 60
Density of mixture	1.4 g/cm³
Density of mixture incl. quartz sand	1.8 g/cm³
Density of mixture incl. chrome-ore slag	1.85 g/cm³
Solid content EN ISO 3251	approx. 100 % by weight
Application up to grade (pavements up to 10 mm)	12 %
max. film thickness at safety kerbs	vertical up to 3 mm

Coating systems

	Consumption (kg/m²)	Sanding
1 Primer coating GEHOPON-E24-Primer Minimal dry film thickness: 80 µm	theoretically: 0.225 in practice 0.3 to 0.5	
2 RHD-types of pavements		
2.1 Pedestrian footways, cycle paths, servicing cat-walks WIEREGEN-D80-Compact grey D80-7201 1 : 1 filled with quartz 0.6 to 1.2 mm Nominal dry film thickness 4 to 6 mm **Details see Appendix 1**	approx. 0.9 approx. 0.9 (per mm DFT)	Quartz 0.6 to 1.2 mm (in surplus) Total consumption approx. 8 to 10 kg/m² approx. 4 kg/m² remain
2.2 Pavements WIEREGEN-D80-Compact grey D80-7201 1 : 1 filled with chrome-ore slag 1 to 3 mm Nominal dry film thickness 6 to 10 mm **Details see Appendix 2**	approx. 0.925 approx. 0.925 (per mm DFT)	Chrome-ore slag 1 to 3 mm (in surplus) Total consumption approx. 10 to 12 kg/m² approx. 5 kg/m² remain
2.3 Safety kerbs WIEREGEN-D80-Compact grey D80-7201 1 : 1 filled with quartz 0.6 to 1.2 mm plus standardising agent RS 225 Nominal dry film thickness 2 to 3 mm **Details see Appendix 3**	approx. 0.9 approx. 0.9 (per mm DFT)	Quartz 0.6 to 1.2 mm (in surplus) Total consumption approx. 8 to 10 kg/m² approx. 4 kg/m² remain

Supplements and sanding materials

Material	Graining
Quartz sand	0.6 to 1.2 mm
Chrome-ore slag	1 to 3 mm

■ INSTRUCTIONS FOR APPLICATION

This Technical Information contains only some essential instruction for the production of RHD pavements.
For the application and for the surveillance of the manufacture of the pavements it is in any case necessary to follow the detailed instructions of ZTV-RHD-ST *) as well as the form „Ausführungsanweisung nach den ZTV/TL-RHD-ST“ (Application instructions according to ZTV/TL/RHD/ST).

For detailed notes concerning the manufacture of the three types of pavements (pedestrian footways, cycle paths, servicing cat-walks, pavements und safety kerbs) see our Appendices 1, 2 and 3.

*) Can be ordered at the FGSV Verlag, Konrad-Adenauer-Straße 13 in D-50996 Cologne.

Processing conditions

Air, surface and material temperatures

Allowed processing conditions according to ZTV-RHD-ST:
Temperatures between +12 °C and +40 °C.

Optimal results will be achieved at temperatures of 15 to 25 °C.

The surface temperature of the parts to be coated must be at least 3 °C above the dew point of the surrounding air throughout the application. (see basic specification for corrosion protection EN ISO 12944-7)

Relative humidity

Max. 80 % relative humidity.

The material may not be applied in the case of rain, condensation or mist. If necessary, suitable protection measures have to be taken (see ZTV-RHD-ST paragraph 5.4).

Comments on processing

Mixing

Mix WIEREGEN-D80-Compact thoroughly first with the enclosed curing agent DX-16, then with the supplement using a mechanical mixer (forced mixing) until a homogenous and unclouded mixture is produced. After pouring into another container the material is ready for use.

Methods of application

WIEREGEN-D80-Compact can be applied with a trowel or with a large-surface scraper.

Cleaning of equipment With thinner V-74.

Cured material must be removed mechanically.

Attention Like all coating materials based on isocyanate-curing polyurethane, WIEREGEN-D80-Compact must be protected from water (rain, sweat, other fluids) until water resistance is achieved.

The used additives have to be dry as well.

Pot life

	at +12 °C	**at +30 °C**
Pot life	60 min	30 min
Water resistance after	approx. 36 h	approx. 16 h
Over-coating after	at least 5 days	at least 24 h

Supplements, e. g. of quartz sand or chrome-ore slag, prolong the pot life.

Drying and curing time Can be walked over after 24 hours at a temperature of approx. 20 °C.

Full mechanical resistance after 7 to 14 days depending on temperature.

■ SAFETY MEASURES

The curing agent produces an alkaline reaction on skin and mucous membrane (eyes). Soiling must be avoided. In case of direct contact clean thoroughly with water and soap.

The relevant data concerning safety measures can be found in the material safety data sheet of this product.
The valid issue of the material safety data sheet is available from our website www.geholit-wiemer.de.