

**Two-pack polyurethane protective coating  
- Electrostatic sprayable -**

- **FIELDS OF APPLICATION** Two-pack protective coating with high mechanical resistance for steel structures, machines, valves, apparatus construction preferably for indoor use.  
At low corrosion stresses (categories C1, C2 and C3-Medium according to DIN EN ISO 12944-2) as a monolayer system with a nominal dry film thickness of 100 µm.

- **PRODUCT PROPERTIES** WIEREGEN-M162R is a satin glossy two-pack protective coating (monolayer), based on a polyurethane binder. The material cures quickly at normal temperature. The material is preferably applied by airless-/airmix spraying or the respective electrostatic methods.

**Capacities** Together with suitable primer and if necessary intermediate coatings protective coating systems will be obtained with excellent resistance properties in areas with high humidity or aggressive atmosphere and against different chemicals.

■ **PRODUCT DATA** WIEREGEN-M162R Hardener

**Product number** M162R-S.... (depending on colour) DX-4B

**Colour** RAL colours  
(Other colours on request)

**Mixing ratio** 15 parts by weight 1 part by weight

The material can also be applied by plural component application systems. Please feel free for our technical advice.

**Degree of gloss** satin glossy

**Form of delivery** Ready for application after mixture with curing agent

**Shelf life** At least 12 months in original cans at normal temperature

**Suitable thinner** Thinner V-89 or thinner V-562

**Theoretical parameters** WIEREGEN-M162R, M162R-S1015

Density (g/mL)	Solid content (weight %)	VOC-content		Solid content by volume	
		(weight %)	per 10 µm DFT* (g/m <sup>2</sup> )	(%)	(mL/kg)
1.5	73	27	7.5	54	360
DFT (µm)	Calculated wet-film thickness (µm)	Consumption (kg/m <sup>2</sup> )		Spreading rate (m <sup>2</sup> /kg)	
100	185	0.280		3.6	

- Remarks
- All values are relevant for the mixture in case of two-pack materials
  - DFT: Dry film thickness
  - All values named are approximate values and relevant for the quality (colour).  
The values may differ slightly for other colours.
- \* baseline for calculation: consumption in g/m<sup>2</sup> at DFT 10 µm

**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

**Coating systems**

<b>Substrate</b>	Steel	
<b>Surface preparation</b>	Blast-cleaning in preparation grade Sa 2 ½ in accordance with DIN EN ISO 12944-4	
	<b>Product</b>	<b>NDFT (µm)</b>
<b>Single-layer protective coating</b>	WIEREGEN-M162R	100

<b>Substrate</b>	Steel	
<b>Surface preparation</b>	Blast-cleaning in preparation grade Sa 2 ½ in accordance with DIN EN ISO 12944-4	
	<b>Product</b>	<b>NDFT (µm)</b>
<b>Primer coating</b>	WIEREGEN-M162R	80
<b>Top coating</b>	WIEREGEN-M97R	80

The coating system/s named are examples proved in practice which usually can be modified. The choice of coating materials as well as their number and film thickness depends on the stress to be expected, existing specifications and the methods of application.

■ **INSTRUCTIONS  
FOR APPLICATION**

**Surface preparation**

Steel surfaces

Blast-cleaning in accordance with DIN EN ISO 12944-4, surface preparation grade Sa 2 ½.

**Air and surface  
temperature**

Optimal results at temperatures of 15 to 25 °C, not below 5 °C

**Relative humidity**

Max. 80 % relative humidity

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 DIN EN ISO 12944-7)

**Comments on processing**

**Mixing**

Mix thoroughly with the enclosed quantity of curing agent, preferably with a mechanical mixer. Material must be stirred again after 15 minutes. Then the mixture is ready for use.

**Application methods**

Means of application / parameters	recommended nominal dry film thickness per working operation	Addition of thinner V-89
Airless spraying Nozzle diameter: 0.38 to 0.68 mm Material pressure: 150 to 250 bar	100 µm	up to 2 %
Airmix spraying Nozzle diameter 0.33 to 0.48 mm Material pressure 100 to 150 bar Atomiser pressure 1.5 to 2.0 bar	100 µm	up to 2 %
Roller coating / brush application	60 µm	up to 4 %

In case of roller coating / brush application several working operations can be necessary to obtain a uniform layer thickness and appearance. Among other things this depends on the colour, the processing procedures and equipment, the ambient conditions and the geometry of the parts to be coated.

Remarks

- The values above are related to a temperature of approximately 20 °C and are recommendations respectively rough guides. In practice it may be necessary to make modifications.

**Cleaning of equipment** With thinner V-562

**Pot life** 4 to 6 hours (depending on temperature)

**Drying and curing times**  
Drying stage in accordance with DIN 53150 at 100 µm DFT

Air temperature	+ 5 °C	+ 10 °C	+ 20 °C
Drying stage 1 (dry to touch)	≤ 60 min.	≤ 45 min.	≤ 30 min.
Drying stage 3 (tack free)	3 - 4 h	2 - 3 h	1 - 2 h
Drying stage 6 (ready for re-coating)	approx. 8 h	approx. 6 h	3 - 4 h

The curing of WIEREGEN-M162R can be accelerated by using higher temperatures e.g.: 20 minutes drying at 80 °C (related to a DFT of 100 µm)

■ **SAFETY MEASURES**

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](http://www.geholit-wiemer.de).

The statements made here are based on the present state of our knowledge. We do not assume liability for damages resulting from the use of the material or from any advice given by our employees. In this respect, any advice given by our employees has to be seen as not binding. The processor is responsible for the supervision of construction, the maintaining of process guidelines and the observation of the established rules of techniques, even if our employees are present at the time our material is being applied. This information is subject to modifications due to technical improvements. The latest edition of this information replaces all previous issues.