

# HIGHREZ WD®

High Viscosity Epoxy Resin Bonding agent

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# DESCRIPTION

**Highrez WD**® A High viscosity moisture tolerant epoxy resin, which when applied achieves a high bond strength and excellent penetrative power, making it suitable for a wide range of applications.

#### USES

# Highrez WD® is applied for:

- ➤ Bonding old to new concrete
- ➤ Reinforcing old concrete
- > Priming prior to floor coating

### **ADVANTAGES**

- Excellent adhesion to steel
- ➤ High ultimate compressive strength
- ➤ Smooth finish
- > Applied horizontally and vertically
- ➤ Moisture tolerant

# COMPLIANCE

ASTM C 881-90 Type I II, IV for bonding concrete

# MATERIAL DATA

Type	HIGHREZ WD	HIGHREZ WD4	
* *	(Clear)	(Pigmented)	
	3 Component	2 Component	
Liquid Form	Clear	Off White	
Drying Form	Clear	Off White	
Packing	3,6,& 16 Kg Packing		
Storage	24 month in unopened packaging, between 5°C and 35°C		

# TECHNICAL DATA

Property	Value	Test Method
Solid Content	100%	ASTM D 1353
Density	1.25 <u>+</u> 0.05	
Compressive strength	>40.0N/mm <sup>2</sup> @ 7 days	BS 196-1 1995
Flexural Strength	24.0 N/mm² @ 7 days	BS 1881 Part 118
Tensile strength	15.0 N/mm² @ 7 days	BS 6319 Part 7
Bonding Strength	>12N/mm <sup>2</sup>	BS 6319 Part 4
Service Temperature	10°C to 60°C	
Pot life	120 minutes @ 25°C	
Setting Time	4-5 hours	
VOC	<60 gm/l	
Chemical Resistance	Caustic Soda 30%	G
E = Excellent	Sulphuric Acid 5%	E
G = Good	Lactic Acid	E
P = Poor	Kerosene	E
D = Destroyed	Hydrolic Acid 10%	E
	Petrol	E
	Toluene	G
	Ethanol	Е
	Sodium	

# **SURFACE PREPERATION**

Bonding, priming Protection: Remove surface laitance by grinding. Metals should be cleaned to a bright finish. In all cases a clean, sound, dust free surface must be achieved.

Crack Ponding Horizontal Surfaces: Ensure crack edges are sound and clean, blow or vacuum out dust and debris. Use mastic, putty or sand/cement to build 25mm high walls along the cracks which will provide a pressure head and stop resin loss.

#### Mixing

Mix both contents by using mechanical paddle or drill. Maintain a slow speed to avoid overheating and potential loss of characteristics.

Achieve the mix by pouring the Hardener "B" over the Resin "A" and continue mixing until uniform colour has been achieved.

Leave the mix for 2-3 min to cool and start applying it over the desired surface

## **Application**

The mixed material should be applied over the desired substrate using roll or brush. Scrubbing when applying will facilitate the penetration of the material and ensure better adhesion and bonding capability.

After application, the surface should achieve a glossy wet off-white finish, indicating that the substrate has been coated properly and the concrete has absorbed the material efficiently. If you suspect that the concrete has over absorbed, **Highrez WD®** should be recoated again until saturation has been achieved. Upon achieving a tacky finish and within 45-60 min, the new Concrete should be poured over the coated area. For Chloride contaminated concrete, apply **Highrez WD®** as a barrier coat and allow it to fully dry within 24 hours, prior to applying any concrete repair.

# THEORETICAL SPREADING RATE

3-6m<sup>2</sup> / 1KG @ 0.15-0.3 mm

# **Curing:**

12-24hr initial curing 7 days full curing

#### PROTECTION MEASURES

**Highrez WD®** is Epoxy based and there is risk of cauterization in the event of contact with the eyes; will lead to dehydration and thereof irritation in case of contact with skin. So while mixing and applying the product, protect with safety goggles and protective gloves

- Splashes to skin must be washed off with water and Soap
- Splashes to the eyes must be rinsed with clean warm water.
  Seeking medical attention is highly recommended and mandatory

## Important Notice:

The above data is based on our experience and extensive laboratory tests. It may be considered to be a general advice only and cannot be granted to meet the requirements for all the intended uses. It is the responsibility of the end user to ensure that the product is suitable for the purpose for which he wishes to use it. In view of many varying factors that are encountered during the application of the product it does not exclude the end users from not conducting their own test before actually using the product. We are thus only responsible for the quality of the product itself and not responsible for its performance, nor would we accept any liability whatsoever or howsoever arising from the use of this product. Any such matters should be specifically agreed to in writing by us. Bayshield reserves the right to modify the contents of the data sheet from time to time without notice as a system requirement in updating our products from time to time.