

Corrosion protection of rebar and bonding agent



# **AREA OF USE**

**Redisit** is used as an anticorrosive coating on steel rebars and as a bonding agent between old and new concrete/mortar.

Redisit prevents corrosion and restores the alkalinity around rebar before the repair of concrete with Redirep 25 RSF, Redirep 45 RSF or normal cementitious mortars that have been modified with a synthetic polymer latex. It is also suitable for use on underground constructions.

# **TECHNICAL CHARACTERISTICS**

**Redisit** is a cementitious slurry containing admixtures that provide excellent corrosion protection, adhesion and pliability.

**Redisit** is flexible, easy to handle, and ensures corrosion protection due to:

- its high alkalinity;
- its excellent adhesion to metal;
- its corrosion-inhibiting admixtures.

Redisit meets the requirements of EN 1504-9 ("Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. General principles for use of products and systems"), and the requirements of EN 1504-7 ("Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. Reinforcement corrosion protection").

# **RECOMMENDATIONS**

- Do not dilute Redisit with water once it has started to set
- Do not add cement or other aggregates to Redisit.
- Apply Redisit immediately after sandblasting (do not leave bare rebar unprotected for a long period of time)
- Do not use **Redisit** at temperatures below +5°C.

# DIRECTIONS FOR USE Preparation of steel

Remove any corrosion from the rebar so that it is metallically clean (purity SA 2–2.5), e.g. by sandblasting.

#### **Preparation of concrete surfaces**

Carefully clean all concrete surfaces and remove all loose particles. Absorbent substrates should be prewetted.

### Mixing

Use an electric drill and whisk, and mix **Redisit** in approx. 3 minutes, approx. 1 liter water per 5 kg alupack or approx 4 liter water per 20 kg bag. mix continuously until a smooth, even consistency is obtained, let the mix rest for a few minutes and stir up before use. Maximum water addition 22%.

### **Application**

Corrosion protection of rebar:

Apply **Redisit** to rebar with a brush. Apply two coats, 1–2 hours apart, to a combined thickness of approx. 2 mm.



# **TECHNICAL DATA (typical values)**

PRODUCT IDENTITY				
Consistency:	powder			
Colour:	grey			
Maximum particle size (mm):	0.4			
Dry solids content (%):	100			
PRODUCT APPLICATION DATA (at +20 °C, 50% RH)				
Colour of mixture:	grey			
Water required:	approx. 1.0-1.1 l per 5 kg alupack approx. 4.0-4.4 l per 20 kg bag			
Consistency:	thixotropic paste			
Density (kg/m³):	approx. 2050			
pH:	> 12.5			
Application temperature:	+5°C to +35°C			
Pot life:	approx. 1 hour			
Waiting time between each coat:	approx. 1–2 hours			
Waiting time before applying repair mortar:	approx. 1–6 hours			
Minimum thickness of Redisit (mm):	2			
FINAL PROPERTIES (amount of water 21%)				

Mechanical characteristics	Test method	Minimum requirements to EN 1504-7	Product characteristics
Compressive strength (MPa):	EN 12190	not required	> 20 (after 1 day) > 30 (after 7 days) > 40 (after 28 days)
Flexural strength (MPa):	EN 196-1	not required	<ul><li>&gt; 4 (after 1 day)</li><li>&gt; 6 (after 7 days)</li><li>&gt; 8 (after 28 days)</li></ul>
Bond strength to concrete (MC 0.40; water/cement ratio = 0.40) in accordance with EN 1766 (MPa):	EN 1542	not required	> 2.0 (after 7 days)
Corrosion resistance: - 10 cycles of condensation in water; - 10 cycles in sulfur dioxide in accordance with EN ISO 6988; - 5 days in salt mist in accordance with EN 60068-2-11:	EN 15183	Following a series of cycles, the protected rebar should be free of corrosion. Penetration of corrosion into the end of rebar should be < 1 mm	approved

#### **Bonding agent**

Apply one coat of **Redisit** to a pre-wetted substrate.

Wait 1-6 hours before applying repair mortar.

### PRECAUTIONS FOR APPLICATION

No special measures are necessary when the product is used between +5°C and +35°C. The product must not be exposed to direct sunlight in hot weather, as this will result in a reduced pot life.

### Cleaning

Tools used should be cleaned with water while **Redisit** is still fresh. Hardened material must be removed mechanically.

#### **CONSUMPTION**

100 g/m 8 mm rebar and 200 g/m 16 mm rebar, assuming 2 mm coating thickness.

#### **PACKAGING**

**Redisit** is supplied in 5 kg alupack (box with 4x5 kg) and 20 kg bags.

#### **STORAGE**

**Redisit** can be stored for 12 months if kept in unopened original packaging above +5°C.

**Redisit** meets the requirements of Annex XVII to the REACH Regulation (EC) No. 1907/2006, item 47.

# SAFETY INSTRUCTIONS FOR PREPARA-TION AND APPLICATION

For further information about the safe use of our product, please refer to the latest version of our Material Safety Data Sheet, to be found on our website, www.mapei.no

PRODUCT FOR PROFESSIONAL USE.

#### WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.no

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All relevant references for the product are available upon request and from www.mapei.no

