WG-WELEFORCE RP

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

Two components high build; rust penetrating epoxy mastic coating, reinforced with glass flakes.

FEATURE

Application:

- on poor prepared surfaces till grade St2 according ISO 8501-1;
- to damp surfaces at relative humidity up to 95%;
- to surfaces prepared by high pressure water jetting (HPWJ).

Provide:

- excellent corrosion and abrasion resistance;
- impact and chemical resistance in aggressive environment;
- due to the content of special additives, the material is able to penetrate into the solid layers of rust and prevents its further spread.

RECOMMENDED TO USE

Steel surfaces as:

- a primer or top coat in protective systems with environmental corrosivity classes C2-C4, C5 and CX (ISO-12944-2/2018);
- for structures immersed in fresh, sea or brackish water penetrating to soil compatible with cathodic protection as well (Im1; Im2; Im3 and Im4 - ISO-12944-2 / 2018);
- a single coat in environmental corrosivity classes C2-C4;
- maintenance coating on deep seated rust as well as previously painted surfaces.

COMPATIBLE COATINGS

Depending on the operating conditions the material can be used with different types of coatings.

- Two-component epoxy coatings (2 pack EP) of Welesgard.
- Two-component polyurethane coatings (2 pack PUR) of Welesgard.

(For details please contact the Welesgard Technical Sales Support).

TECHNICAL DATA

Appearance	
Color:	Grey*
Appearance:	Gloss coating
Material properties	
Volume solids:**	82 ± 2%
Density in the mixed state:	1.42 ± 0.05 g/sm^3
VOC value:	≤246 g/l
Impact Resistance (ASTM 2794):	>4 J
Adhesion (ASTM D4541):	>5 MPa

Note: *Other colours could be requested.
**Volume solid could very and depended from colour.

SURFACE PREPARATION

Surface type	Minimum	Recommended
Surface profile	Ry5 (50–80 µm) (ISO 8503-1)	Ry5 (50–80 µm) (ISO 8503-1)
Primed and previously painted surfaces	P St2; P Ma ISO 8501-2, ISO 12944-4; Wa 2,(ISO 8501-4) or WJ2 (NACE No.5/SSPC-SP 12)	P Sa2; PMa ISO 8501-2, ISO 12944-4 Wa 2, (ISO 8501-4) or WJ2 (NACE No.5/SSPC-SP 12)
Steel surfaces	Sa 2 (ISO 8501-1)	Sa 2½ (ISO 8501-1)

AMBIENT CONDITIONS

Ambient air temperature:	from +2 to +50°C
Surface temperature:	from +2 to +45°C
Relative humidity, below:	95%
Dew Point:*	Visually dry

Note: *There is no need to control the dew point.

WG-Weleforce RP may be applied to damp surfaces, but it should not contain a drop drips, puddles or to be covered with a film of water.
- In order to ensure the best possible performance of the product, it is recommended that the temperature of paint itself be from 10 to 25°C during the application.

THICKNESS & THEORETICAL SPREADING RATE

Standard Grade	Min.	Med.*	Max.
Dry Film Thickness:	150 µm	250 µm	400 µm
Wet Film Thickness:	183 µm	305 µm	488 µm
Spreading Rate:	5.5 m^2/l	3.3 m^2/l	2 m^2/l

Note: * Recommended dry film thickness (DFT) - 250µm.
- Practical coverage depends on the application conditions, structure to be painted, roughness of the surface and application method.

DRYING TIME

(Dry Film Thickness 250 µ)	0°C	5°C	10°C	23°C	40°C
Dry to touch	13 h	10 h	7h30m	4 h	2h30m
Min. overcoating interval itself	20 h	15 h	12 h	8h30m	6 h
Max. overcoating interval itself	90 d	85 d	75 d	60 d	30 d
Min. overcoating interval 2 pack EP/PUR	18 h	14 h	12 h	7 h	5 h
Max. overcoating interval 2pack EP/PUR	90 d	82 d	70 d	60 d	36 d
Cure for service	16 d	12 d	9 d	7 d	5 d

Note: - Drying times and polymerization depend from the relative humidity, temperature, ventilation conditions and the thickness of the film.
- The curing and polymerization times are determined at a controlled temperature and relative humidity (RH) of 60 - 80%.
- In case of long periods of overcoating, it is necessary to consider the possibility of contamination of the substrate (grease, dust), which must be removed before carrying out the overcoating.
- If maximum recoat time is exceeded, it is necessary to make surface roughness with abrasive, rinse with clean water to remove dirt and allow drying.

(For details please contact the Welesgard Technical Sales Support).

APPLICATION DATA

Mixing ratio: 4,12:1

Resin "A"	4,12 parts by volume
Curing Agent "B"	1 part by volume

Stir resin and curing agent separately (slow stirring) and then mix both components thoroughly with propeller stirrer. Before use the temperature of packaging and material should not be less than 3 ° C higher than the dew point.
Add thinner only after both components have been thoroughly mixed and stir the mixture.
Thinning: If is necessary, the thinner WG-Welethinner EP could be added up to 5% by volume.

Note: - Adding a thinner will increase the drying time.
- In the case of using thinner other than recommended, the manufacturer not takes responsibility for any possible reduction in the quality of the coating!
Cleaner: WG-Welethinner EP
Pot life:

Temperature	Pot life (not less than)
2°C	3 h
15°C	2 h
23°C	1 h
35°C	45 min.

APPLICATION METHODS

Spray application: Airless spray is the main method of application. For other spraying methods, viscosity correction may be required.
Brush: Recommended for touch-up, stripe coating and small areas only. It is necessary to provide a nominal coating thickness.
Roller: Could be used for repair or minor touch-up work. Do not use roller for application of priming coat.

PACKAGING

	Volume (liters)	Size of containers (liters)
Component "A"	8.1	10
Component "B"	1.9	2

STORAGE & SHELF LIFE

The product must be stored in original sealed containers. The storage conditions are to keep the containers in a dry, well ventilated space away from source of heat and ignition.

Storage temperature:	from 5 to 30°C
Component "A"	2 years
Component "B"	1 years

Note: After lasting storage primer shall be stirred thoroughly until its precipitation is spread over the suspension homogeneously. Precipitation in primer does not change its properties or worsen its quality.
After the expiration date has passed, it is necessary to check the quality of the paint material.

SAFETY

Use with adequate ventilation. Do not inhale aerosol. Avoid contact with skin. After contact with skin, wash immediately with detergent, soap and water. In case of contact with eyes, rinse immediately with water and seek medical advice immediately.

For detailed information on the health and safety protection for use of this product see Safety Data Sheet (SDS).

IMPORTANT NOTE

The above-mentioned information is given according to our laboratory tests and practical application experience.
The manufacturer takes into consideration the fact that the material can be used out of control; the manufacturer cannot give guarantees except of the material quality.
The manufacturer has the right to improve the product and change the above-mentioned data without preliminary notification.

THE PRESENT TECHNICAL DATA SHEET REPLACES ALL PREVIOUS EDITIONS.