WG-WELEFORCE MASTIC

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

Two-component, surface-tolerant, high solids, pigmented with micaceous iron oxide, epoxy based primer/topcoat.

FEATURE

Application:

- with minimum surface preparation grade St 2 according ISO 8501-1;
- and cures at low temperatures, down to -5°C.

Provide:

- 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 environmental classes C2-C4, C5 and CX (ISO-12944-2/2018);
- a single coat on box girders and plate structures;
- maintenance coating on deep seated rust and old painted surfaces;
- for structures immersed in fresh, sea or brackish water compatible with cathodic protection as well (Im1; Im2 and Im4 - ISO-12944-2 / 2018).

Concrete surfaces:

- for structures in medium, high, very high and extreme atmospheric corrosivity categories (C3, C4, C5 and CX - ISO-12944-2 / 2018) as well as structures immersed in fresh, sea or brackish water (Im1; Im2 - ISO-12944-2 / 2018).;

COMPATIBLE COATINGS

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

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

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

TECHNICAL DATA

Appearance	
Color:	Grey, red, white and industrial paint colours with limitations.
Appearance:	Semi matt coating
Material properties	
Standard Grade:	
Volume solids:	80% ± 2%
Total mass of solids:	1230 g/l
VOC value:	180 g/l
Winter Grade:	
Volume solids:	74± 2%
Total mass of solids:	1190 g/l
VOC value:	230 g/l

SURFACE PREPARATION

Surface type	Minimum	Recommended
Surface profile	Ry5 (30–75 µm) (ISO 8503-1)	Ry5 (30–75 µm) (ISO 8503-1)
Primed surfaces	P St2; P Ma ISO 8501-2, ISO 12944-4	P Sa2; PMa ISO 8501-2½, ISO 12944-4

Surface type	Minimum	Recommended
Previously painted surfaces	P St2; P Ma ISO 8501-2; ISO 12944-4; WJ2 (NACE No.5/SSPC-SP 12)	P Sa2; PMa ISO 8501-2; ISO 12944-4; WJ2 (NACE No.5/SSPC-SP 12)
Steel surfaces	Sa 2 (ISO 8501-1)	Sa 2½ (ISO 8501-1)
Concrete Surfaces	SSPC-SP 13/NACE No. 6	SSPC-SP 13/NACE No. 6

Note: Exposed to immersion: Blast cleaning to min. Sa2½ (ISO 8501-1, ISO 8504-2).

AMBIENT CONDITIONS

Standard Grade:

Ambient air temperature:	from +10 to +50°C
Surface temperature:	from +10 to +50°C
Relative humidity, below:	85%
Dew Point	at least 3°C higher than steel temperature

Winter Grade

Ambient air temperature:	from -5 to +40°C
Surface temperature:	from -5 to +40°C
Relative humidity, below:	85%
Dew Point	at least 3°C higher than steel temperature

Note: 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.	Middle	Max.
Dry Film Thickness:	120 µm	200 µm	300 µm
Wet Film Thickness:	150 µm	250 µm	375 µm
Spreading Rate:	6.7 m^2/l	4.0 m^2/l	2.7 m^2/l

Winter Grade	Min.	Middle	Max.
Dry Film Thickness:	120 µm	200 µm	300 µm
Wet Film Thickness:	160 µm	270 µm	405 µm
Spreading Rate:	6.2 m^2/l	3.7 m^2/l	2.5 m^2/l

Note: Practical coverage depends on the application conditions, structure to be painted, roughness of the surface and application method.

DRYING TIME

Standard Grade:

(Dry Film Thickness 200 µm)	23°C
Dry to touch	3 h
Dried to handle	5 h
Min. recoating interval	7 h
Full curing	7 d

Winter Grade:

(Dry Film Thickness 200 µm)	-5°C	0°C	5°C	10°C	23°C
Dry to touch	24 h	18 h	12 h	6 h	4 h
Dried to handle	48 h	26 h	18 h	12 h	5 h
Min. recoating interval (2pack EP)	48 h	26 h	18 h	12 h	
Min. recoating interval (2pack PUR)	---	---	96 h	48 h	
Full curing	21 d	14 d	7 d	3 d	

Note: - Drying times and polymerization depend from the relative humidity, temperature, ventilation conditions and the thickness of the film.
- 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: 1:1

Resin	1 parts by volume
Curing Agent	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 from 5 to 10% 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:

Std. Grade (+23 °C)
Approx. 1 h after mixing.
Winter Grade
Approx. 1 h after mixing (+23 °C)
Approx. 3 h after mixing (+10 °C)

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)
Comp. A	10	20
Comp. B	10	10

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"	3 years
Component "B"	3 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.