

PRODUCT DESCRIPTION

Single pack highly efficient polyurethane anticorrosive solvent-based moisture-cured primer.

FEATURE

- Unique paint material with mixture of zinc and micaceous iron oxide (MIO) pigments yielding a long lasting coating with excellent anticorrosive and barrier properties.
- Surface tolerant primer – may be applied on poorly prepared steel surfaces.
- No dew point restrictions and tolerant to very high humidity
- Subzero application - cures down to -18°C
- Has no restriction on the maximum recoating interval.

RECOMMENDED TO USE

The primer is recommended as zinc primer on blast-cleaned steel surfaces.

It may be used in anticorrosion coating systems in conjunction with other coating materials to protect against harsh conditions (atmospheric and immersion), e.g. bridges, off-shore structures, splash zones.

The primer can be used in corrosion environments C2-C4, C5-I, C5-M, Im1-Im3 (ISO 12944-2).

As a single layer system WG-Ferrogalvanic could be used to protect insulated steel surfaces with operation temperature up to 110 °C.

COMPATIBLE COATINGS

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

Primer:

- WG-Ferrogalvanic

Topcoat:

- Welesgard one component moisture cured polyurethane coatings series.
- Two-component polyurethane coatings Sulacover 2K series.

For details, please contact Welesgard Technical Sales Support.

TECHNICAL DATA

Appearance	
Color:	Grey
Appearance:	Matt
Material properties	
Volume solids:	67 ± 2 %
Density (at +20 °C):	2.27 ± 0.05 g/cm ³
VOC value:	<250 g/l
Dry heat resistance (ASTM D2485) prolonged exposure	145 °C
short-term exposure	175 °C

SURFACE PREPARATION

Preliminary surface preparation:

All solid contamination that could prevent adhesion should be removed from the surfaces. Remove salts and other water soluble contamination by wet cleaning with brush, high pressure-, steam- or alkali cleaning.

Remove grease and oils by alkali-, emulsion- or solvent cleaning (ISO 8504-3, ISO 12944-4). After cleaning with detergents, rinse thoroughly with water.

Steel Substrates

The minimum grade of Surface Preparation is St 3 (ISO 8501-1), but in order to prolong coating system service life is recommended blast cleaning to Sa 2½ (ISO 8501-1, ISO 8504-2).

Surface profile:

The surface profile must conform to "fine" or "medium" according to ISO 8503-1 (30-75 microns Ry5).

AMBIENT CONDITIONS

Air temperature:	from -18 to +55 °C
Surface temperature:	from -18 to +55 °C
Paint Material temperature:	+15 °C
Relative humidity:*	30 – 99 %
Dew Point:	Not limited surface is dry to touch

Note:

- Do not apply WG-Ferrogalvanic during rain or snow, or if precipitation is expected before the applied coating becomes dry to touch.

*At relative humidity levels below 30%, WG-Welefast Activator is recommended. WG-Welefast Activator can extend the RH application range to 5 – 99%.

THICKNESS & THEORETICAL SPREADING RATE

	Min.	Recommend	Max.
Dry Film Thickness:	80 µm	100 µm	150 µm
Wet Film Thickness:	120 µm	150 µm	224 µm
Spreading Rate:	8.4 m ² /l	6.7 m ² /l	4.5 m ² /l

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

DRYING TIME

For DFT of 100 µm	-5 °C ≥70%RH	10 °C ≥70%RH	25 °C ≥70%RH	40 °C ≥70%RH
Dry to touch	5 h	2.5 h	1 h	0.5 h
Dried to handle	17 h	8.5 h	3 h	1.5 h
Dry for service	28 d	14 d	7 d	4 d
Dry to recoat with 1 K MCC, min	17 h	8.5 h	3 h	1.5 h
Dry to recoat with 2 K PU, min	72 h*	36 h*	12 h*	4 h*

Note:

- As the relative humidity of the air decreases, the curing time of the coating increases.
- There is no maximum overcoating interval.
- WG-Welefast Activator may shorten drying time of the coating.
- *Recoat interval for 2 K PU can be shortened when using WG-Welefast Activator

APPLICATION DATA

Stirring:

It's a single pack material, which shall be stirred thoroughly before application with mechanical mixer in order to achieve its fully homogeneous condition.

Before opening and stirring the temperature of material must be at least 3°C above dew point.

Thinning:

The addition of thinner is usually not necessary. If necessary WG-Welethinner or WG-Welethinner CC can be added up to 10 % to the volume.

The thinner WG-Welethinner CC should be used at temperatures not higher than 5 ° C.

The thinner WG-Welethinner should be used at temperatures between 0 and 55 ° C.

Note: If other than recommended thinners are used the manufacturer is not responsible for deterioration of coating quality.

Cleaning:

After work all equipment shall be cleaned with the thinner WG-Welethinner or WG-Welethinner CC. In case the above-mentioned thinner are not available the following solution can be used: xylene; MEK; mixture of xylene and MEK (1:1 ratio).

APPLICATION METHODS

Airless spray application is recommended. For other spraying methods, viscosity adjustment may be necessary.

Airless application recommendations:

Pressure	17 - 20 MPa
Nozzle orifice	0.011-0.021"
Spray angle	Depended on painting structure
Filter	To provide filter cleanliness. Filter Size – 60 mesh (250 µm).

Brush:

Recommended for stripe coat application or minor repair touch-up only.

Roller:

Prohibited to use roller for application of priming coat. Roller could be used to build up the dry film thickness.

Note: In case the application gets interrupted (e.g. bad weather condition) or is slow, pour 100 - 200 ml of thinner on top and close the can tightly. This will prevent diffusion of moisture into the paint.

PACKAGING

WG-Ferrogalvanic	Volume (liters)	Size of containers (liters)
	10/12	10/12

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/or ignition.

Storage temperature:	from 5 to 30 °C
Shelf Life	12 months

Note: Precipitation in primer does not change its properties or worsen its quality. After lasting storage primer shall be stirred thoroughly until its precipitation is spread over the suspension homogeneously.

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. Eyes rinse with water immediately and call a doctor.

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.