

Technical Data

Penguard WF



Product description

This is a two component, anticorrosive water borne epoxy primer/intermediate paint which cures down to 5 °C. Contains active corrosion protective pigments and flash rusting inhibitors. Available with different hardeners for varying substrate temperatures, Standard for temperatures from 15 °C to 40 °C and WG for temperatures from 5 °C to 23 °C.

Recommended use

As a primer/intermediate paint on steel, aluminium, galvanized steel, stainless steel and concrete above the waterline. May be over coated with water borne acrylics, water borne epoxy and suitable solvent borne coatings.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (µm)	75	150	100
Film thickness, wet (µm)	147	294	196
Theoretical spreading rate (m ² /l)	6,8	3,4	5,1

Physical properties

Colour	Grey XO, Red
Solids (vol %)*	51 ± 2
Flash point	Non flammable
Gloss	Flat
Water resistance	Very good
Flexibility	Very good

*Measured according to ISO 3233:1998 (E)

Theoretically calculated VOC: 67/69 (WG) g/L

Surface preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Bare steel

Cleanliness: Blast cleaning to min. Sa 2 ½ (ISO 8501-1:2007) or for maintenance UHPWJ to WJ2 (NACE No.5/SSPC-SP 12). Roughness: using abrasives suitable to achieve grade Fine to Medium G (30-85 µm, Ry5) (ISO 8503-2)

Shoppripped steel

Clean, dry and undamaged approved shopprimer.

Other surfaces

The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be minimum 5°C and at least 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is required in confined areas to ensure correct drying.

Application methods

Spray	Use airless spray
Brush	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.
Roller	May be used for small areas but not recommended for first primer coat, however when using roller application care must be taken to apply sufficient material in order to achieve the specified dry film thickness.

Application data

Mixing ratio (volume)	2:1
Mixing	2 parts Comp. A to be thoroughly mixed with 1 part of Penguard WF, Comp. B. 2 parts Comp. A to be thoroughly mixed with 1 part of Penguard WF, WG Comp. B. To secure a proper mixing a mechanical stirrer should be used to stir up both the components separately before mixture and during the mixing of the two components thoroughly down to the bottom of the can (mix for at least 5 minutes)
Induction time	15 minutes.
Pot life (23°C)	STD: 1,5 hours. VISIBLE END OF POT LIFE. WG: 1 hour. VISIBLE END OF POT LIFE.
Thinner	Water. Fresh clean water.
Cleaner	Jotun Thinner No. 17 and Jotun Thinner No. 4
Guiding data airless spray	
Pressure at nozzle	15 MPa (150 kp/cm ² 2100 psi)
Nozzle tip	0.38-0.53 mm (0.017-0.023")
Spray angle	40-80°
Filter	Make certain that the filters are perfectly clean.
Note	In order to secure a proper mixing, it is recommended that the temperature of the two components is approximately 20 °C when mixing. Induction time is for STD variant. WG variant can be used immediately after thorough mixing.

Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

- * Good ventilation (Outdoor exposure or free circulation of air)
- * Typical film thickness
- * One coat on top of inert substrate

STD Comp B:

Substrate temperature	23°C	40°C
Surface dry	1,5 h	30 min
Through dry	10 h	4 h
Cured	7 d	5 d
Dry to recoat, minimum	4,5 h	2,5 h

WG Comp B:

Substrate temperature	5°C	10°C	23°C
Surface dry	1,5 h	1,5 h	1 h
Through dry	3 d	1 d	8 h
Cured	21 d	14 d	7 d
Dry to recoat, minimum	15 h	5 h	3,5 h
Dry to recoat, maximum			

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Corrosivity category C2 (ISO 12944):

Penguard WF 1 x 80 µm (Dry Film Thickness)
WaterFine Topcoat/Hardtop XP 1 x 40 µm (Dry Film Thickness)

Corrosivity category C3 (ISO 12944)

Penguard WF 1 x 100 µm (Dry Film Thickness)
WaterFine Topcoat/Hardtop XP 1 x 50 µm (Dry Film Thickness)

Corrosivity category C4 (ISO 12944)

Penguard WF 2 x 100 µm (Dry Film Thickness)
WaterFine Topcoat/Hardtop XP 1 x 50 µm (Dry Film Thickness)

Corrosivity category C5 (ISO 12944)

Barrier 80 1 x 50 µm (Dry Film Thickness)
Penguard WF 1 x 120 µm (Dry Film Thickness)
WaterFine Topcoat/Hardtop XP 1 x 80 µm (Dry Film Thickness)

Other systems may be specified, depending on area of use

Procedure for preparation and cleaning of application equipment

To avoid solvent contamination of the water borne paint the spraying equipment has to be conditioned before use. All equipment containing solvents in the pump, hoses and gun have to be thoroughly cleaned according to the following instructions.

If the application equipment is made in stainless steel, designed for and only used for application of water borne coatings this preparation and cleaning procedure is not needed.

Before spraying:

Circulate Jotun Thinner No. 17 through the equipment and hoses. Then Jotun Thinner No. 4 before fresh clean water.

After spraying:

Clean the equipment and hoses with water and detergent (Kraftvask), then circulate Jotun Thinner No. 4 and finally Jotun Thinner No. 17.

Storage

Storage conditions are to keep the container in a dry, cool well ventilated space and away from source of heat and ignition and in accordance to national regulations. Containers must be kept tightly closed and kept away from freezing. Shelf life at 23°C: Comp. A, 1 year; Comp. B, 2 years. Subject to re-inspection thereafter. Storage at elevated temperatures will reduce product shelf life significantly

Handling

Handle with care. Stir well before use.

Packing size

15 litre unit: 10 litres Comp. A in a 20 litre container and 5 litres Penguard WF, Comp. B in a 5 litre container

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Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not breathe or inhale mist. Avoid skin contact. Spillage on the skin should immediately be removed with suitable cleanser, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product can be used under conditions beyond our control, we can only guarantee the quality of the product itself. We also reserve the right to change the given data without notice. Minor product variations may be implemented in order to comply with local requirements.

If there is any inconsistency in the text the English (UK) version will prevail.

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