****DRAFT ONLY****

Resist 18 WF

Product description

This is a two component waterborne inorganic zinc rich alkali silicate coating. It is a fast curing, very high zinc dust containing product. It conforms to the compositional requirements of SSPC paint 20, level 1, ISO 12944-5, BS 4652, BS 5493 and AS/NZS 3750.15. It provides supreme corrosion protection. It is heat resistant up to 1004 °F (540 °C). To be used as single coat system in atmospheric and immersed environments.. This product complies with ASTM D520 type II zinc dust.

Typical use

Protective:
Suitable for structural steel and piping to be exposed to highly corrosive environments, C5I or C5M (ISO 12944-2). Can be used as a tank lining with anti-static properties.

Approvals and certificates

Contributes to satisfying the following credit(s):
- Indoor Environmental Quality (IEQ) under LEED® 2009

Complies with AS/NZS 3750.15 type 3 Waterborne coating containing a minimum of 85 % metalic zinc in the dry film.

Additional certificates and approvals may be available on request.

Colors

grey

Product data

Property	Test/Standard	Description
Solids by volume	OCCA Monograph No. 4	57 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	Non-flammable.
Density	calculated	2.9 kg/l

Region	Regulation	Test Standard	VOC Value

The provided data is typical for factory produced products, subject to slight variation depending on color.

Gloss description: According to Jotun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	2 mils (50 µm)	5 mils (125 µm)
Wet film thickness	4 mils (90 µm)	9 mils (220 µm)
Theoretical spreading rate	360 ft²/gal (8.8 m²/l)	190 ft²/gal (4.6 m²/l)

Surface preparation

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10 with a surface profile 1.2 - 3.3 mils (Fine to Medium G (ISO 8503-2))	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10 with a surface profile 1.2 - 3.3 mils (Fine to Medium G (ISO 8503-2))

Application

Application methods

The product can be applied by

Spray:	Use a specially designed conventional spray/HVLP. Airless spraying is not recommended.
Brush:	Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

Resist 18 WF Comp A	10.4 part(s)
Muki Z WB-14 / Resist 18 WF Comp B	4.54 part(s)

Product mixing ratio (by weight)

Resist 18 WF Comp A	13.32 part(s)
Muki Z WB-14 / Resist 18 WF Comp B	26.91 part(s)

Component A is a liquid and Component B is dry zinc dust. Component A must be well shaken before use. Pour the zinc dust slowly into the liquid during mechanical mixing. Stir until lump free and pass through a 60 mesh sieve.

Thinner/Cleaning solvent

Thinner: Water

Do not add thinner.

Guiding data for air spray

Nozzle tip:	HVLP: 22-70 (inch/1000)
Pressure at nozzle (minimum):	HVLP: 3.8 bar/30 psi

Drying and Curing time

Temperatures:
-10°C = 14°F / -5°C = 23°F / 0°C = 32°F / 5°C = 41°F / 10°C = 50°F / 15°C = 59°F / 23°C = 73°F / 35°C = 95°F / 40°C = 104°F / 100°C = 212°F

Substrate temperature	10 °C	23 °C	40 °C
Surface (touch) dry	40 min	10 min	5 min
Walk-on-dry	80 min	20 min	10 min
Dry to handle	24 h	3 h	3 h
Dried/cured for service	10 d	5 d	3 d

For maximum overcoating intervals, refer to the Application Guide (AG) for this product.

Drying and curing times are determined under controlled temperatures and relative humidity below 60 %, and at average of the DFT range for the product.

Higher temperature and lower humidity will assist in removing moisture from the film.

Surface (touch) dry: The state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

Walk-on-dry: Minimum time before the coating can tolerate normal foot traffic without permanent marks, imprints or other physical damage.

Dry to handle: Minimum time before the coated objects can be handled without physical damage.

Dried/cured for service: Minimum time before the coating can be permanently exposed to the intended environment/medium.

Induction time and Pot life

Temperatures: 15°C = 59°F / 23°C = 73°F

Paint temperature	23 °C
Pot life	6 h

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	400 °C	540 °C

This product can withstand a peak temperature of 1000 °F (540 °C) for a longer period as well. A continuous temperature above 752 °F (400 °C) will however affect the long term performance of an inorganic zinc silicate coating.

Peak temperature duration max. 1 hour.

The temperatures listed relate to retention of protective properties. Aesthetic properties may suffer at these temperatures.

Packaging (typical)

	Volume (liters)	Size of containers (liters)
Resist 18 WF Comp A	10.4	20
Muki Z WB-14 / Resist 18 WF Comp B	4.54	5

The volume stated is for factory made colors. Note that local variants in pack size and filled volumes can vary due to local regulations.

Storage

The product must be stored in accordance with national regulations. Keep the containers in a dry, shaded, cool, well-ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Shelf life at 73°F (23 °C)

Resist 18 WF Comp A	12 month(s)
Muki Z WB-14 / Resist 18 WF Comp B	24 month(s)

In some markets commercial shelf life can be dictated shorter by local legislation. The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Note

This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Jotun's technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible Jotun representative for approval before commencing the work.

Health and safety

Please observe the precautionary notices displayed on the container. Use under well ventilated conditions. Do not inhale spray 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.

Color variation

When applicable, products primarily meant for use as primers or antifoulings may have slight color variations from batch to batch. Such products and epoxy based products used as a finish coat may chalk when exposed to sunlight and weathering.

Color and gloss retention on topcoats/finish coats may vary depending on type of color, exposure environment such as temperature, UV intensity etc., application quality and generic type of paint. Contact your local Jotun office for further information.

Disclaimer

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.