

Muki Z 1000 WF

Product description

This is a two component inorganic waterborne chemically curing zinc silicate coating. It is a shop primer designed for excellent welding and cutting speed, giving reduced weld porosity and back burning. It is fast drying and has good abrasion resistance making it suitable for stacking shortly after application. Can be used as temporary primer in a new construction phase or as primer in a complete coating system in atmospheric environments. Suitable for properly prepared carbon steel substrates and recommended to be applied in an automated shop priming line. Compatible with advanced welding technologies including MIG, MAG and G-FCAW.

Typical use

Protective:

Suitable for steel plates to be exposed to corrosive environments up to very high. Recommended for refineries, power plants, bridges, buildings, mining equipment and general structural steel.

Approvals and certificates

Type approved shop primer by DNV GL

Additional certificates and approvals may be available on request.

Colours

grey, green, red , blue

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	62 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	120 °C
Density	calculated	2.6 kg/l
VOC-EU	IED (2010/75/EU) (theoretical)	17 g/l
VOC-China	GB/T 23986-2009 (tested)	2 g/l

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

All data is valid for mixed paint.

Gloss description: According to Jotun Performance Coatings' definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	15 - 25	µm
Wet film thickness	24 - 40	µm
Theoretical spreading rate	41.3 - 24.8	m ² /l

Surface preparation

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Surface preparation summary table

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	Sa 2½ (ISO 8501-1)	Sa 2½ (ISO 8501-1)

Application

Application methods

The product can be applied by

Spray: Use airless spray.

Product mixing ratio (by volume)

Muki Z 1000 WF Comp A 1.25 part(s)
Muki Z 1000 WF Comp B 1 part(s)

Thinner/Cleaning solvent

Thinner: Deionized water or
 Tap water

Actual thinning amount is based on the ventilation, temperature and relative humidity on site.

Guiding data for airless spray

Nozzle tip (inch/1000): 15-35
Pressure at nozzle (minimum): 50 bar/700 psi

Drying and Curing time

Substrate temperature	23 °C	40 °C
Surface (touch) dry	3 min	2 min
Walk-on-dry	3 min	2 min
Dry to over coat, minimum	1 d	1 d
Dried/cured for service	1 d	1 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 75 %, and at average of the DFT range for the product. Lower temperature and humidity and poor ventilation will make curing speed slower relatively.

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 over coat, minimum: The recommended shortest time before the next coat can be applied.

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

Induction time and Pot life

Paint temperature	23 °C
Pot life	6 h

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	400 °C	400 °C
Immersed, sea water		-

Peak temperature duration max. 1 hour.

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

Note that the coating will be resistant to various immersion temperatures depending on the specific chemical and whether immersion is constant or intermittent. Heat resistance is influenced by the total coating system. If used as part of a system, ensure all coatings in the system have similar heat resistance.

Product compatibility

Depending on the actual exposure of the coating system, various primers and topcoats can be used in combination with this product. Some examples are shown below. Contact Jotun for specific system recommendation.

Subsequent coat: epoxy, epoxy mastic, zinc epoxy

Packaging (typical)

	Volume (litres)	Size of containers (litres)
Muki Z 1000 WF Comp A	5	10
Muki Z 1000 WF Comp B	4	20

The volume stated is for factory made colours. 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, cool, well ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

Comp A should be stored and transported in at least 5 °C. Comp B has no temperature limitation.

Shelf life at 23 °C

Muki Z 1000 WF Comp A	6 month(s)
Muki Z 1000 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.

Caution

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.

Colour variation

When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering.

Colour and gloss retention on topcoats/finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., and application quality. 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.
