Jotatemp 1000 Ceramic

Product description

This is a two component titanium catalyzed inorganic ceramic copolymer. It complies to the generic type Multi Polymeric Matrix Coating. It is resistant to low temperatures down to -320 °F (-196 °C) and high temperatures up to 1830 °F (1000 °C) continuously, where substrates allow. Can be used as primer or finish coat in atmospheric environments. Suitable for properly prepared carbon steel, stainless steel and ceramic substrates. It can be applied on hot substrates up to 482 °F (250 °C).
The product passes the standard tests used for qualifying coatings preventing corrosion under insulation (CUI). It will offer proper corrosion protection at ambient conditions during construction and shut-down periods.

Typical use

Protective:
Specially designed for preventing corrosion under insulation (CUI). Can be used in combination with Jotatemp 540 Zinc as primer, providing heat resistance up to 1004 °F (540 °C) and lasting corrosion protection. For shorter periods, such a combined system can handle peak temperatures up to 1112 °F (600 °C). Suitable for insulated and non insulated surfaces.

Approvals and certificates

Tested in accordance with ISO 12944-6, high expected durability in corrosivity category C5
For certificates and approvals for high temperature and cryogenic service please contact your local Jotun office.

Additional certificates and approvals may be available on request.

Colors

dark grey, aluminum (close to RAL 9006)

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	75 ± 2 %
Gloss level (GU 60 °)	ISO 2813	matt (0-35)
Flash point	ISO 3679 Method 1	79 °F (26 °C)
Density	calculated	1.8 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong)	3.02 lbs/gal

The provided data is typical for factory produced products, subject to slight variation depending on color.
All data is valid for mixed paint.
Gloss description: According to Jotun Performance Coatings' definition.

This technical data sheet supersedes those previously issued.
The Technical Data Sheet (TDS) is recommended to be read in conjunction with the Safety Data Sheet (SDS) and the Application Guide (AG) for this product. For your nearest local Jotun office, please visit our website at www.jotun.com

Film thickness per coat

Typical recommended specification range

Dry film thickness	4 mils (100 µm)	- 6 mils (150 µm)
Wet film thickness	5 mils (130 µm)	- 8 mils (200 µm)
Theoretical spreading rate	310 ft²/gal (7.5 m²/l)	- 200 ft²/gal (5 m²/l)

In one-coat systems, dry film thickness up to 200 µm can be applied.

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	St 2 (ISO 8501-1) or SSPC SP-2	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10
Stainless steel	The substrate shall be mechanically prepared to impart a scratch pattern, and to remove all polish from the surface.	Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.
Ceramic substrates	The surface shall be clean and dry	The surface shall be clean and dry
Coated surfaces	Clean, dry and undamaged compatible coating	Clean, dry and undamaged compatible coating

Application

Application methods

The product can be applied by

Spray:	Use airless spray.
Brush:	Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness.

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Product mixing ratio (by volume)

Jotatemp 1000 Ceramic Comp A	112.5 part(s)
Jotatemp 1000 Ceramic Comp B	1 part(s)

Thinner/Cleaning solvent

Thinner: Jotun Thinner No. 7

To achieve the best spraying properties the product must be thinned 3-5 % by volume before application. Since this is a heavy bodied material it is important that thinning level is kept below 7 % to avoid sagging and settling.

Guiding data for airless spray

Nozzle tip (inch/1000): 17-23

Pressure at nozzle (minimum): 150 bar/2100 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	15 °C	23 °C	40 °C
Surface (touch) dry	5.5 h	3 h	2.5 h	1.5 h
Walk-on-dry	24 h	18 h	6 h	3.5 h
Dried to over coat, minimum	24 h	18 h	6 h	3.5 h
Dried/cured for service	4 d	3 d	24 h	18 h

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 85 %, and at average of the DFT range for the product.

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.

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Induction time and Pot life

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

Paint temperature	23 °C	40 °C
Pot life	6 h	4 h

Heat resistance

Ceramic substrates:
Continuous: 1830 °F (1000 °C)

Carbon steel / Stainless steel*:
Continuous: 1202 °F (650 °C)
Peak: 1382 °F (750 °C)

* Operating temperatures above 1004 °F (540 °C) will require special attention to the substrate's ability to maintain integrity. Contact Technical Sales Support (TSS) for details.

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

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.

Previous coat:	zinc silicate, inert multipolymeric matrix, itself
Subsequent coat:	silicone, itself

Packaging (typical)

	Volume (liters)	Size of containers (liters)
Jotatemp 1000 Ceramic Comp A	4.5	5
Jotatemp 1000 Ceramic Comp B	0.04	0.25

0.04 l = 0.008 gal
4.5 l = 1.19 gal

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, cool, well ventilated space and away from sources of heat and ignition. Containers must be kept tightly closed. Handle with care.

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Storage temperature not to exceed 104 °C (40 °C).

Shelf life at 73°F (23 °C)

Jotatemp 1000 Ceramic Comp A	12 month(s)
Jotatemp 1000 Ceramic 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 may fade and 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., 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.