Tankguard DW

Product description

This is a two component solvent free amine cured epoxy coating. It is specially designed for drinking water tanks. Can be used as primer and finish coat in atmospheric and immersed environments. Suitable for properly prepared carbon steel, stainless steel, aluminium, composites and concrete substrates.

Typical use

To be used as a coating for potable water tanks and pipes. Independently tested and certified for potable water storage.

Approvals and certificates

Approved to BS 6920-1:2000 for contact with potable water.
Approved by the Norwegian Institute of Public Health for use in contact with potable water.
In compliance with Federal Drug Authority, USA, FDA Title 21, Part 175.300, approved for exposure to dry foods
Meets the requirements of ANSI/AWWA standard C210-07. Suitable for water pipelines.
Certified by UL to meet the drinking water criteria of NSF/ANSI/CAN 600

Additional certificates and approvals may be available on request.

Colors

light grey, white

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	100 %
Gloss level (GU 60 °)	ISO 2813	gloss (70-85)
Flash point	ISO 3679 Method 1	212 °F (100 °C)
Density	calculated	1.4 kg/l
VOC-US/Hong Kong	US EPA method 24 (tested) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong)	0.03 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.

Film thickness per coat

Typical recommended specification range

Dry film thickness	6 mils (150 µm)	- 16 mils (400 µm)
Wet film thickness	6 mils (150 µm)	- 16 mils (400 µm)
Theoretical spreading rate	270 ft²/gal (6.7 m²/l)	- 100 ft²/gal (2.5 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	Sa 2½ (ISO 8501-1) or NACE No. 2 / SSPC SP-10
Stainless steel	The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to 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.
Aluminum	The surface shall be hand or machine abraded with non-metallic abrasives or bonded fibre machine or hand abrasive pads to impart a scratch pattern to 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.
Composite	The surface shall be hand or machine abraded to impart a scratch pattern to the surface.	The surface shall be hand or machine abraded to impart a scratch pattern to the surface.
Concrete	Dry abrasive blast cleaning to NACE No. 6 / SSPC-SP 13.	Dry abrasive blast cleaning to NACE No. 6 / SSPC-SP 13.

Optimum performance, including adhesion, corrosion protection, heat resistance and chemical resistance is achieved with recommended surface preparation.

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.

Product mixing ratio (by volume)

Tankguard DW Comp A	2 part(s)
Tankguard DW Comp B	1 part(s)

Thinner/Cleaning solvent

Do not add thinner.

Cleaning equipment
Prior to application: Jotun Thinner No. 28
After application: Jotun Thinner No. 17

Guiding data for airless spray

Nozzle tip (inch/1000):	19-25
Pressure at nozzle (minimum):	175 bar/2500 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	15 h	10 h	3 h
Walk-on-dry	25 h	13 h	5 h
Dried to over coat, minimum	25 h	13 h	5 h
Dried/cured for service	14 d	7 d	4 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.

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

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

Paint temperature	23 °C
Induction time	5 min
Pot life	30 min

Reduced at higher temperatures

Heat resistance

	Temperature	
	Continuous	Peak
Dry, atmospheric	120 °C	140 °C
Immersed, sea water	50 °C	60 °C

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: itself only

Additional information

WASHING PROCEDURES FOR POTABLE WATER TANKS:

After the coating is fully cured, and before the tank is taken into use for potable water it should be thoroughly cleaned.

The letter of approval from the Norwegian Institute of Public Health specifies several possible procedures. Alternatively, one of the following procedures may be employed:

- High pressure fresh water washing using a temperature of minimum 30 °C.
- Steam cleaning.
- Manually scrubbing the tank with warm water and an alkaline detergent.

Afterwards the tank surfaces should be flushed with clean fresh water.

For the BS6920 certificate there is no specific requirements to cleaning procedure, the only requirement is that the coating is properly cured and the tank cleaned preferably with fresh water before the tank is taken into use. For warm water, it is recommended to achieve properly cure by 7 days at 23 °C and 4 hours flushing with fresh

water hot enough to reach a steel temperature of 50 °C ± 2 °C for 4 hours.

On completion of the washing the tank shall be emptied of water by pumping. The remaining water after pumping shall be removed by the use of towels and rags in order to ensure that contaminants are removed. Evaporation will only concentrate remaining contaminants.

Please contact Jotun's local technical service team for further information, or refer to the Application Guide.

Packaging (typical)

	Volume (liters)	Size of containers (liters)
Tankguard DW Comp A	10	20
Tankguard DW Comp B	5	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, 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)

Tankguard DW Comp A	12 month(s)
Tankguard DW Comp B	12 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.