

# Technical Data Sheet



## 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 in accordance with NSF/ANSI/CAN 61 for potable water, and meet criteria of NSF/ANSI/CAN 600.

Additional certificates and approvals may be available on request.

### Colours

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 | 100 °C        |
| Density               | calculated        | 1.4 kg/l      |

| Region    | Regulation  | Test Standard    | VOC Value |
|-----------|---|------------------|-----------|
| US        | CARB(SCM)2020 / SCAQMD rule 1113  | Calculated       | 2 g/l     |
| Hong Kong | Air Pollution Control (VOC) Regulation                                      | Calculated       | 2 g/l     |
| EU        | European Paint Directive 2004/42/CE   | Calculated       | 2 g/l     |
| EU IED    | Industrial Emission Directive 2010/75/EU                                    | Calculated       | 2 g/l     |
| Korea     | Korea Clean Air Conservation Act  | KS M ISO 11890-1 | 17 g/l    |
| China     | GB 30981-2020 Limit of harmful substances of industrial protective coatings | GB/T 34682-2017  | 6 g/l     |

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

Gloss description: According to Jotun Performance Coatings' definition.

## Film thickness per coat

### Typical recommended specification range

|                            |           |                   |
|----------------------------|-----------|-------------------|
| Dry film thickness         | 150 - 400 | µm                |
| Wet film thickness         | 150 - 400 | µm                |
| Theoretical spreading rate | 6.7 - 2.5 | m <sup>2</sup> /l |

## Surface preparation

### Surface preparation summary table

| Substrate       | Surface preparation  |  |
|-----------------|--|--|
|                 | Minimum  | Recommended  |
| Carbon steel    | Sa 2½ (ISO 8501-1)   | Sa 2½ (ISO 8501-1)   |
| 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. |
| Aluminium       | 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 SSPC-SP 13/NACE No. 6.  | Dry abrasive blast cleaning to SSPC-SP 13/NACE No. 6.  |

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

## Application

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### 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

| 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   |
| Dry 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.

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## Induction time and Pot life

**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 proper 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.

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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<br>(litres) | Size of containers<br>(litres) |
|---------------------|--------------------|--------------------------------|
| Tankguard DW Comp A | 10                 | 20                             |
| Tankguard DW Comp B | 5                  | 5                              |

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, 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 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.

## 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

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When applicable, products primarily meant for use as primers or antifoulings may have slight colour variations from batch to batch. Such products and epoxy based products used as a finish coat may 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., application quality and generic type of paint. Contact your local Jotun office for further information.

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## 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.

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