

Technical Data

Tankguard 412



Product description

Tankguard 412 is a solvent-free, two-pack epoxy tank coating.

Recommended use

Tankguard 412 is designed for use in Potable Water (drinking water) tanks.
Tankguard 412 can also be used for corrosion protection for the internal lining of steel storage tanks e.g crude oil - please contact Jotun for specific recommendations.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (µm)	150	500	200
Film thickness, wet (µm)	150	500	200
Theoretical spreading rate (m ² /l)	6,7	2	5

Comments

When used in drinking water tanks, do not thin.

Approvals

1. Norwegian Institute of Public Health (Folkehelsa) has approved Tankguard 412 for use in contact with potable water. The approval requires curing at temperature min 23°C for 7 days after application.
 2. Australian APAS approval to specification 0213, 2974F & 2974P.
 3. Certification of test to AS/NZS 4020.
 4. UL Classification in accordance with ANSI/NSF Standard 61 for potable water in USA.
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Physical properties

Colour	Black, Green, Red , White
Solids (vol %)*	100 ± -2
Flash point	>100°C (Setaflash)
VOC	0,83 lbs/gal (100 gms/ltr) USA-EPA Method 24 40 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Glossy
Water resistance	Excellent
Abrasion resistance	Very good
Solvent resistance	Very good
Chemical resistance	Very good
Flexibility	Good

*Measured according to ISO 3233:1998 (E)

Surface preparation

All surfaces should be clean, dry and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Bare steel

Cleanliness: Blast cleaning to min. Sa 2 ½ (ISO 8501 1:2007). Roughness: using abrasives suitable to achieve Grade Medium G (50 - 85 µm, Ry5) (ISO 8503-2).

Other surfaces

The coating may be used on other substrates. Please contact your local Jotun office for more information.

Condition during application

The temperature of the substrate should be minimum 10°C and minimum 3°C above the dew point of the air. Relative humidity should be below 60% until the application procedure is finished. The temperature and the relative humidity should be measured in the vicinity of the substrate. Good ventilation is usually required in confined areas to ensure proper drying. The coating should not be exposed to oil, chemicals or mechanical stress until cured.

Application methods

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

Application data

Mixing ratio (volume)	2:1
Mixing	2 parts Comp. A (base) to be mixed thoroughly with 1 part Tankguard 412, Comp. B (curing agent).
Induction time	10 minutes.
Pot life (23°C)	1 hour (reduced at higher temperature).
Cleaner	Flush the application equipment with Jotun Thinner No. 28 prior to application. Use Jotun Thinner No. 17 for cleaning equipment after application.
Guiding data airless spray	
Pressure at nozzle	25 - 35 MPa (3600 - 5000 p.s.i.)
Nozzle tip	0.53 mm - 0.66 mm (0.021" - 0.026")
Spray angle	40° - 80°
Filter	Filters should be removed, both in the pump and the spray gun, due to the viscosity of the paint. Should, however, air bubbles in the paint be a problem a coarse filter may be employed. If used, check to ensure that filters are clean.

Note	<ul style="list-style-type: none">* It is of vital importance that the nozzle and other parts of the spraying equipment are cleaned properly directly after the work is done due to the short pot life.* The hoses should be of good quality and not longer than necessary.* An extra whip 1 m prior to the spray gun may be used.* Preferably store both paint components at 23 – 28 degrees C. Be aware that higher storage temperature will shorten the pot life after mixing. For stripe coating, however, a lower paint temperature may be favourable, in order to get a sufficient pot life.
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Drying time

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with:

- * Good ventilation (Outdoor exposure or free circulation of air)
- * Typical film thickness
- * One coat on top of inert substrate

Substrate temperature	10°C	23°C	40°C
Surface dry	15 h	6 h	1.5 h
Through dry	30 h	12 h	4 h
Cured	15 d	7 d	4 d
Dry to recoat, minimum	30 h	12 h	4 h
Dry to recoat, maximum	96 h	48 h	18 h

The given data must be considered as guidelines only. The actual drying time/times before recoating may be shorter or longer, depending on film thickness, ventilation, humidity, underlying paint system, requirement for early handling and mechanical strength etc. A complete system can be described on a system sheet, where all parameters and special conditions could be included.

Typical paint system

Tankguard 412	2 x 200 microns	(Dry Film Thickness)
or		
Tankguard 412	1 x 300 microns	(Dry Film Thickness)

Other systems may be specified, depending on area of use

Optional washing procedures for potable water tanks

A suitable washing procedure depending on national rules may be required.

Coating must be fully cured prior to any washing procedure

The following is one of the suggested washing procedures in accordance with the Norwegian Institute of Public Health: The whole coating is irrigated with water (preferable with a temperature of more than 15°C) for 2 days. Thereafter, the tank is thoroughly cleaned with soap and hot water (80°C) and scrubbed with a brush or washed with steam before being used.

On completion of the washing procedure 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 any contaminants in that water are removed. Evaporation will only concentrate any contaminants.

The given data must be considered as guidelines only.

Other washing procedures may be acceptable, please contact your local Jotun representative for details.

Storage

The product must be stored in accordance with national regulations. Storage conditions are to keep the containers in a dry, cool, well ventilated space and away from source of heat and ignition. Containers must be kept tightly closed.

Handling

Handle with care. Stir well before use.

Packing size

10 litres Comp. A (Base) in a 20 litre container and 5 litres Tankguard 412, Comp. B (curing agent) in a 5 litre container

Health and safety

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

For detailed information on the health and safety hazards and precautions for use of this product, we refer to the Material Safety Data Sheet.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.

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