Jotacote Universal S120

Product description

This is a two component solvent free polyamine cured epoxy coating. It is an excellent crack resistant, abrasion resistant, low VOC emission primer. Available with curing agents for standard, and for quick drying (QD) properties. Specially designed as a universal, all round, all year new building coating where required. Can be used as primer, mid coat, finish coat or as single coat system in atmospheric and immersed environments. Suitable for properly prepared aluminium, carbon steel, galvanised steel, shop primed steel and stainless steel substrate.

Typical use

Exterior and interior areas, including outside hulls, superstructures, decks, cargo holds, water ballast tanks and fresh water tanks. Can be applied in one coat or two coats in water ballast tanks and other areas.

Approvals and certificates

Approved for PSPC for Water Ballast Tanks according to IMO Res. MSC 215(82)
- One coat (1 x 320 µm) system and two coat (2 x 160 µm) system

Pre-qualified in accordance with NORSOK M-501, Edition 6, System 1
Pre-qualified in accordance with ISO 20340 for splash and tidal zone
Approved for use in potable water tanks in accordance with NSF/ANSI Standard 61
Approved and listed by Federal Waterways Engineering and Research Institute (BAW)

Additional certificates and approvals may be available on request.

Colours

buff, light red, red, white, grey

Product data

Property	Test/Standard	Description
Solids by volume	ISO 3233	97 ± 2 %
Gloss level (GU 60 °)	ISO 2813	gloss (70-85)
Flash point	ISO 3679 Method 1	100 °C
Density	calculated	1.6 kg/l
VOC-US/Hong Kong	US EPA Method (theoretical) (CARB(SCM)2007, SCAQMD rule 1113, Hong Kong)	45 g/l
VOC-EU	IED (2010/75/EU) (theoretical)	8 g/l
VOC-Korea	Korea Clean Air Conservation Act (tested) (Max. thinning ratio included)	8 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	150	-	500	µm
Wet film thickness	155	-	515	µm
Theoretical spreading rate	6.5	-	1.9	m²/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 for drinking water tanks	St 3 (ISO 8501-1)	Sa 2½ (ISO 8501-1)
Carbon steel	St 2 (ISO 8501-1)	Sa 2½ (ISO 8501-1)
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.
Galvanised steel	The surface shall be clean, dry and appear with a rough and dull profile.	Sweep blast-cleaning using non-metallic abrasive leaving a clean, rough and even pattern.
Shop primed steel	Dry, clean and intact shop primer.	Sweep blasted or alternatively blasted to Sa 2 (ISO 8501-1) of at least 70 % of the surface.
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.
Coated surfaces	Clean, dry and undamaged compatible coating	Sa 2½ (ISO 8501-1)

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.
Roller:	May be used for small areas. Not recommended for first primer coat. Care must be taken to achieve the specified dry film thickness.

Product mixing ratio (by volume)

Jotacote Universal S120 Comp A	3 part(s)
Jotacote Universal S120 Standard Comp B	1 part(s)

Thinner/Cleaning solvent

For Water ballast tanks and other areas:
Thinner: Jotun Thinner No. 17

For Drinking water tanks:
Do not add thinner to the paint.
Cleaning equipment prior to application: Jotun Thinner No. 28
After application: Jotun Thinner No. 17

Guiding data for airless spray

Nozzle tip (inch/1000):	17-25
Pressure at nozzle (minimum):	180 bar / 2600 psi

Drying and Curing time

Substrate temperature	5 °C	10 °C	23 °C	40 °C
Surface (touch) dry	22 h	17 h	7 h	3 h
Walk-on-dry	45 h	23 h	9 h	4 h
Dry to over coat, minimum	38 h	21 h	8 h	4 h
Dried/cured for immersion	4 d	3 d	2 d	1 d
Dried/cured for service	16 d	12 d	7 d	3 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 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 immersion: Minimum time before the coating can be permanently immersed in sea water.

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	1 h

Reduced at higher temperatures, and with increased mixing volumes.

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

Previous coat:	inorganic zinc silicate shop primer, epoxy, epoxy mastic, zinc epoxy
Subsequent coat:	acrylic, alkyd, epoxy, polyurethane, polysiloxane, epoxy mastic, vinyl epoxy

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.

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 (litres)	Size of containers (litres)
Jotacote Universal S120 Comp A	15	20
Jotacote Universal S120 Standard 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, 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

Jotacote Universal S120 Comp A	12 month(s)
Jotacote Universal S120 Standard 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

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.

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