

Litatank Plus

Description

Two component polyamine cured phenolic/novolac epoxy coating. It has a high resistance to most sour crude oils and a wide range of chemicals and solvents. Offers outstanding chemical resistance to crude oil at temperatures up to 160°C. Can be used as primer, mid coat or finish coat in atmospheric and immersed environments. Suitable for properly prepared carbon steel, galvanised steel, stainless steel and concrete substrates.

Typical use

Specially designed as an internal lining for offshore, onshore and buried tanks and pipes such as chemical storage, waste water, grey water, process water, concrete bund, fire service lines and drilling mud tanks. This coating has very good resistance to high temperature products and methanol.

Colors

Buff, white

Product data

Solids by volume	70±2%
Gloss level (GU 60°) (ISO 2813)	Semi-gloss (35-70)
Flash point (ISO 3679 Method 1)	28°C
Density	1.6 kg/l

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 is subject to Litum definition.

Film thickness per coat

Typical recommended specification range

Dry film thickness	100-150 µm
Wet film thickness	140-215 µm
Theoretical spreading range	7.0-4.7 m ² /l

Surface preparation

To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Surface preparation table

Carbon steel

Minimum	Sa 2½ (ISO 8501-1)
Recommended	Sa 2½ (ISO 8501-1)

Galvanized steel

Minimum	The surface shall be clean, dry and appear with a rough and dull profile.
Recommended	Sweep blast-cleaning using nonmetallic abrasive leaving a clean, rough and even pattern.

Stainless steel

Minimum	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.
Recommended	Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media which is suitable to achieve a sharp and angular surface profile.

Concrete

Minimum	Dry abrasive blast cleaning to SSPCSP 13/NACE No. 6.
Recommended	Dry abrasive blast cleaning to SSPCSP 13/NACE No. 6.

Optimum product performance (adhesion, corrosion protection, heat resistance and chemical resistance) will be achieved with recommended surface preparation.

Application

Application methods

Spray:

Use air spray or airless spray.

Brush:

Recommended for touch-up purposes at small areas. Ensure nominal DFT.

Roller:

For scallops, holes, small pipes, etc. only. Ensure nominal DFT.

Mixing ratio

Litatank Plus Comp. A	4 parts
Litatank Plus Comp. B	1 part

Thinner

Litum Thinner Nº 23

Induction and pot life

Induction time	15 minutes (23°C)
Pot life	2 hours (23°C)

Airless application

Nozzle tips range (inch/1000):	17-21
Pressure nozzle outlet (minimum):	150 bar

Drying

Surface temperature	5°C	10°C	15°C	23°C	30°C	40°C
Touch dry	24h	16h	6h	4h	3h	2h
Handle (hard) dry	26h	24h	10h	7h	5h	3h
Overcoat minimum	52h	36h	30h	20h	14h	10h
Overcoat maximum	30d	30d	30d	21d	7d	5d
Service dry	14d	10d	7d	5d	4d	3d

If a hot cure is performed Litatank Plus can be returned to service in half the "Service dry" time, as stated below:

- 5 °C: 7 days, including 8 hours at 60 °C
- 10 °C: 5 days, including 8 hours at 60 °C
- 15 °C: 3.5 days, including 8 hours at 60 °C
- 23 °C: 2.5 days, including 8 hours at 60 °C
- 30 °C: 2 days, including 8 hours at 60 °C
- 40 °C: 1.5 days, including 8 hours at 60 °C

Hot cure (by air) can be initiated after the last coat has become "Overcoat minimum» and can be achieved by heating with hot air until a steel temperature of 60 °C is held for 8 hours. Total curing time must be as outlined above.

Curing/drying time is increasing when coating applied at relative humidity (RH) below 85%, and at average of the DFT range for the product.

Touch dry: the state of drying when slight pressure with a finger does not leave an imprint or reveal tackiness.

Handle (hard) dry: minimum time before the coating can tolerate normal pressing without permanent marks or other physical damage.

Overcoat minimum: the recommended shortest time before the next coat application.

Overcoat maximum: maximum time before thorough surface preparation is required.

Service dry: minimum time before the coating can be constantly exposed to the intended environment.

High temperature resistance

120°C, dry heat, continuous

90°C - immersed (sea water), continuously; 95°C - peak

160°C - immersed (crude oil), continuously

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.

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 Litum for specific system recommendation.

Packing size

	Volume (L)	Container (L)
Litatank Plus comp. A	16	20
Litatank Plus comp. B	4	5

Storage and shelf life at 23°C

Storage conditions are to keep the containers in a dry, cool, well-ventilated area and away from source of heat and ignition. Containers must be kept tightly closed. Handle with care.

Litatank Plus comp. A 12 months

Litatank Plus comp. B

12 months

The above is minimum shelf life, thereafter the paint quality is subject to re-inspection.

Qualification, health and safety

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 Litum'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 Litum representative for approval before commencing the work. Please observe the precautionary notices displayed on the container. Use under well-ventilated conditions.

Color variation

The product may have slight color variations from batch to batch. Epoxy-based products used as a finish coat may chalk when exposed to sunlight and weathering. Color and gloss retention on 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 Litum office for further information.

Disclaimer

The information in this document is given to the best of Litum's knowledge, based on laboratory testing and practical experience. Litum's products are considered as semi-finished goods and as such, products are often used under conditions beyond Litum's control. Litum cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Litum reserves the right to change the given data without further notice. Users should always consult Litum for specific guidance on the general suitability of this product for their needs and specific application practices. In case of any inconsistencies between two languages of this document, the Russian version will prevail.