

## Litaprime Hydro

### Description

This is a two component polyamine cured epoxy coating. It is a surface tolerant product that can be applied on moist substrates. Will continue to cure when immersed in water. The product provides high abrasion resistance. Suitable for environments with very high corrosivity, such as areas in the splash or tidal zone. Can be used as primer, mid coat, finish coat or as single coat system in atmospheric and immersed environments. It has excellent resistance to cathodic disbonding. Suitable for properly prepared carbon steel, galvanized steel, stainless steel, aluminium and concrete substrates.

### Typical use

Suitable for steel and concrete structural to be exposed to corrosive environments up to very high and immersed. Recommended for offshore environments, refineries, power plants, bridges, buildings, mining equipment and general structural steel. Especially suited in areas where high mechanical strength is required, such as splash or tidal zones. Compatible with cathodic protection systems. Suitable for a wide range of industrial structures C2 - C5, CX and Im1-Im4 (ISO 12944-2:2017) categories.

### Approvals and certificates

Conclusion of the "RUTIL Research Center", LLC on compliance with the requirements of ISO 12944-9:2018 in corrosive environments CX and Im4 according to ISO 12955-2:2017.

### Colors

Red-brown, grey, blue and according to Multicolor Industry tinting system (MCI).

### Product data

#### Bases for tinting

Solids by volume	85±3%
Gloss level (GU 60°) (ISO 2813)	Gloss (70-85)
Flash point (ISO 3679 Method 1)	42°C
Density	1,6±0,05 kg/l

#### Red-brown, grey, blue

Solids by volume	85±3%
Gloss level (GU 60°) (ISO 2813)	Gloss (70-85)
Flash point (ISO 3679 Method 1)	42°C
Density	1,5±0,05 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.

Exposure to water or humidity soon after application may affect the coating surface and give a whitish appearance, especially on dark and strong colors. This will however not affect the protective properties.

### Film thickness per coat

#### Typical recommended specification range

Dry film thickness	200-550 µm
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Wet film thickness	235-650 µm
Theoretical spreading range	4.3-1.5 m <sup>2</sup> /l

When used on horizontal areas as part of a deck coating system the maximum DFT is 1000 µm.

**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

<b>Minimum</b>	St 3 (ISO 8501-1)
<b>Recommended</b>	Sa 2½ (ISO 8501-1)

### Stainless steel

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

### Shop primed steel

<b>Minimum</b>	Sa 2 (ISO 8501-1)
<b>Recommended</b>	Sa 2 (ISO 8501-1)

### Aluminium

<b>Minimum</b>	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.
<b>Recommended</b>	Abrasive blast cleaning to achieve a surface profile using non-metallic abrasive media that is suitable to achieve a sharp and angular surface profile.

### Galvanized steel

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

### Coated surfaces

<b>Minimum</b>	Clean, dry and undamaged compatible coating
<b>Recommended</b>	Clean, dry and undamaged compatible coating

### Concrete

<b>Minimum</b>	Minimum 4 weeks curing. Moisture content maximum 5%. Prepare the surface by means of enclosed blast shot or diamond grinding and other appropriate means to abrade the surrounding concrete and to remove laitance.
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<b>Recommended</b>	Minimum 4 weeks curing. Moisture content maximum 4%. Prepare the surface by means of enclosed blast shot or diamond grinding and other appropriate means to abrade the surrounding concrete and to remove laitance.
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## Application

### Application methods

**Spray:**

Use standard airless spray or two components airless spray with heating.

**Brush:**

Recommended for stripe coating and small areas. Please be careful to achieve the specified dry film thickness.

**Roller:**

May be used for small areas but is not recommended for first primer coat. However, when using roller application care must be taken to apply sufficient material in order to achieve the specified dry film thickness.

### Mixing ratio (by volume)

**Red-brown, grey, blue**

**Litaprime Hydro** comp. A                      5 parts

**Litaprime Hydro** comp. B                      1 part

**Bases for tinting**

Proportional composition of the mixture components is adjusted during the tinting process.

### Thinner

Litum Thinner № 17

### Induction and pot life

Pot life    1 hour (23°C)  
    20 minutes (40°C)

### Airless application

Nozzle tips range (inch/1000):                      21-27  
Pressure nozzle outlet (minimum):                      170 bar/2500 psi

### Drying

Surface temperature	5°C	10°C	15°C	23°C	40°C
Touch dry	15h	11h	9h	4h	1,5h
Handle (hard) dry	26h	18h	14h	8h	3h
Overcoat minimum	26h	18h	14h	8h	3h
Service dry	14d	10d	10d	7d	3d

Drying/curing time was determined at a controlled temperature and relative humidity of less than 85%. The coating had an average thickness from the thickness range for this product.

Excess DFT and/or thinning will prolong drying and curing.

If the product is applied during the tidal zone on piles and jetties, it can be immersed after 1 hour. Early immersion will lead to a whitening of colors, most visible on darker colours. The corrosion performance is however not affected.

**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.

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

## High temperature resistance

Dry, atmospheric 120°C (continuous)

Immersed, sea water 50°C (continuous)

Immersed, sea water 60°C (peak)

Duration of superior temperature limit is maximum 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.

Previous coat: epoxy, inorganic zinc silicate shop primer, epoxy shop primer

Next coat: epoxy, polyurethane, polysiloxan

## Packing size

	Volume (L)	Container (L)
<b>Bases for tinting</b>		
<b>Litaprime Hydro</b> comp. A	14,4	20
<b>Litaprime Hydro Base</b> comp. B	3,6	5
<b>Red-brown, grey, blue</b>		
<b>Litaprime Hydro</b> comp. A	16,65	20
<b>Litaprime Hydro</b> comp. B	3,35	5

The volume stated is for factory made colors.

## 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.

**Litaprime Hydro** comp. A 24 months

<b>Litaprime Hydro Base</b> comp. B	24 months
<b>Litaprime Hydro</b> comp. B	24 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. Do not inhale spray mist. Avoid skin contact. Spillage on the skin should be immediately 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 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 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.