

# Technical Data

## Hardtop XPF



### Product description

A two-pack high solid, aliphatic polyurethane topcoat with excellent gloss and colour retention which is designed to meet the need in new construction industry with more predictable curing in lower temperatures.

### Recommended use

As a glossy topcoat over most epoxy systems where a durable, weather-resistant finish is required in a wide range of aggressive atmospheres.

### Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry ( $\mu\text{m}$ )	40	80	60
Film thickness, wet ( $\mu\text{m}$ )	65	130	95
Theoretical spreading rate ( $\text{m}^2/\text{l}$ )	15,8	7,9	10,5

### Physical properties

Colour	According to color card and Multicolor tinting system (MCI)
Solids (vol %)*	63 $\pm$ 2
Flash point	30°C $\pm$ 2 (Setaflash)
VOC	2,8 lbs/gal (336 gms/ltr) USA-EPA Method 24 320 gms/ltr UK-PG6/23(97). Appendix 3
Gloss	Glossy
Gloss retention	Excellent
Water resistance	Very good
Abrasion resistance	Very good
Solvent resistance	Good
Chemical resistance	Good
Flexibility	Very good

\*Measured according to ISO 3233:1998 (E)

Hong Kong rules:

Category of paints - Other vessel coatings; VOC 336 gms/ltr HK EPD method (Ready to use); Exempt compound - N/A; Specific gravity: 1.39 (A+B); Both VOC and Specific gravity values provided are typical values, subject to changes when different colour involved.

## Surface preparation

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

### Coated surfaces

Clean, dry and undamaged compatible primer. Please contact your local Jotun office for more information.

### Other surfaces

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

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## Condition during application

The coating could be applied down to -10°C surface temperature. Temperature of the substrate should be minimum 3°C above the dew point of the air, temperature and relative humidity measured in the vicinity of the substrate. Good ventilation is required in confined areas to ensure proper drying and curing. Do not use heated air until the solvents have evaporated from the paint film to avoid surface drying and solvent entrapment. The coating should not be exposed to oil, chemicals or mechanical stress until cured. During application and the initial drying of the coating, the coating should not be exposed to high humidity as this can result in loss of gloss and an inferior film.

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## Application methods

<b>Spray</b>	Use airless spray or conventional spray
<b>Brush</b>	Recommended for stripe coating and small areas, care must be taken to achieve the specified dry film thickness.
<b>Roller</b>	May be used. However when using roller application care must be taken to apply sufficient material in order to achieve the specified dry film thickness.

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## Application data

<b>Mixing ratio (volume)</b>	10:1
<b>Mixing</b>	10 parts Hardtop XPF Comp. A (Base) to be mixed thoroughly with 1 part Hardtop XP, Comp. B (Curing agent) by powered mechanical equipment. Mix complete units only, do not part mixing of this product.
<b>Pot life (23°C)</b>	1 hour (the pot life will increase with decreasing temperature)
<b>Thinner/Cleaner</b>	Jotun Thinner No. 10
<b>Guiding data airless spray</b>	
<b>Pressure at nozzle</b>	15 MPa (150 kp/cm <sup>2</sup> , 2100 psi)
<b>Nozzle tip</b>	0.28-0.38 mm (0.011-0.017")
<b>Spray angle</b>	40-80°
<b>Filter</b>	Check to ensure that filters are clean.
<b>Note</b>	Jotun Thinner No. 26 is supplied and used in USA due to legislation.

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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	0°C	5°C	10°C	23°C
Surface dry <sup>1</sup>	48 h	10 h	6 h	4 h	1,5 h
Through dry	60 h	24 h	16 h	10 h	5 h
Cured	60 d	20 d	15 d	10 d	5 d
Dry to recoat, minimum	72 h	24 h	16 h	10 h	5 h
Dry to recoat, maximum <sup>2</sup>					

1. Early exposure to condensation (high humidity, low temperature) before the coating is surface dry may cause colour and/or gloss variations.
2. The surface should be dry and free from any contamination or chalking prior to application of the subsequent coat. As long as the surface is clean, long maximum overcoating by itself is acceptable.

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.

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## Typical paint system

Jotacote Universal	1 x 150 µm	(Dry Film Thickness)
Hardtop XPF	1 x 60 µm	(Dry Film Thickness)
Jotamastic 80	1 x 100 µm	(Dry Film Thickness)
Hardtop XPF	1 x 60 µm	(Dry Film Thickness)

**Note:** To obtain full coverage an extra coat may be necessary, especially for signal colours in red, orange and yellow.  
**Other systems may be specified, depending on area of use**

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## 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.

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## Handling

Handle with care. Stir well before use.

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## Packing size

20 litre unit: 18.2 litres Hardtop XPF Comp. A in a 20 litre container and 1.8 litres Hardtop XP, Comp. B (curing agent) in a 3 litre container

or

5 litre unit: 4.55 litres Hardtop XPF Comp. A in a 5 litre container and 0.45 litre Hardtop XP, Comp. B (curing agent) in a 1 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.**

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### 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 can be used under conditions beyond our control, we can only guarantee the quality of the product itself. We also reserve the right to change the given data without notice. Minor product variations may be implemented in order to comply with local requirements.

If there is any inconsistency in the text the English (UK) version will prevail.

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ISSUED 26 JUNE 2012 BY JOTUN  
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