Technical Data
Hardtop Optima

Product description
Hardtop Optima is a two-pack polysiloxane topcoat with excellent gloss and colour retention.The product is fully recoatable at any stage of curing.

Recommended use
As topcoat over an epoxy system where a durable, high grade finish is required in aggressive atmospheric exposure.

Film thickness and spreading rate

	Minimum	Maximum	Typical
Film thickness, dry (µm)	60	100	75
Film thickness, wet (µm)	80	130	100
Theoretical spreading rate (m^2/l)	12,7	7,6	10,1

Physical properties

Colour	Available in white and colours tinted from Multicolor Industry tinting system (MCI)
Solids (vol %)*	76 ± 2
Flash point	30ºC ± 2 (Setaflash)
VOC	215 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	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.

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.

Condition during application

The temperature of the substrate should be minimum 5°C and at least 3°C above the dew point of the air, temperature and relative humidity 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)	4:1
Mixing	4 parts of Comp. A (base) to be mixed thoroughly with 1 part Hardtop Optima, Comp. B (curing agent).
Pot life (23°C)	6 hours (Reduced at higher temp.).
Thinner	Jotun Thinner No. 7/17
Guiding data airless spray	
Pressure at nozzle	15 MPa (150 kp/cm², 2100 psi).
Nozzle tip	0.33-0.46 mm (0.013-0.018").
Spray angle	40-80º
Filter	Check to ensure that filters are clean.

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	5°C	10°C	23°C	40°C
Surface dry	10 h	5 h	3 h	2 h
Through dry	12 h	7 h	4 h	3 h
Cured	15 d	10 d	5 d	3 d
Dry to recoat, minimum	12 h	7 h	4 h	3 h
Dry to recoat, maximum [1,2]				

1. The surface must be free from any chalking or any other contamination and if necessary, sufficiently roughened prior to application.
2. Provided the surface is free from chalking and other contamination prior to application, there is normally no overcoating time limit. Best intercoat adhesion occurs, however, when the subsequent coat is applied before preceding coat has cured. If the coating has been exposed to direct sunlight for some time, special attention must be paid to surface cleaning and mattening/removal of the surface layer in order to obtain good adhesion.

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

Resist 86 or Barrier	1 x 75 µm	(Dry Film Thickness)
Jotamastic Plus	1 x 250 µm	(Dry Film Thickness)
Hardtop Optima	**1 x 75 µm**	**(Dry Film Thickness)**
Barrier 80	1 x 75 µm	(Dry Film Thickness)
Jotacote Universal	1 x 130 µm	(Dry Film Thickness)
Hardtop Optima	**1 x 75 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

Storage

The product must be stored above 0°C and in accordance with national regulations, subject to re-inspection thereafter. 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

20 litre unit: 16 litres Comp. A in a 20 litre container and 4 litres Hardtop Optima, Comp. B in a 5 litre container.
or
5 litre unit: 4 litres Comp. A in a 5 litre container and 1 litre Hardtop Optima, Comp. B 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.

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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