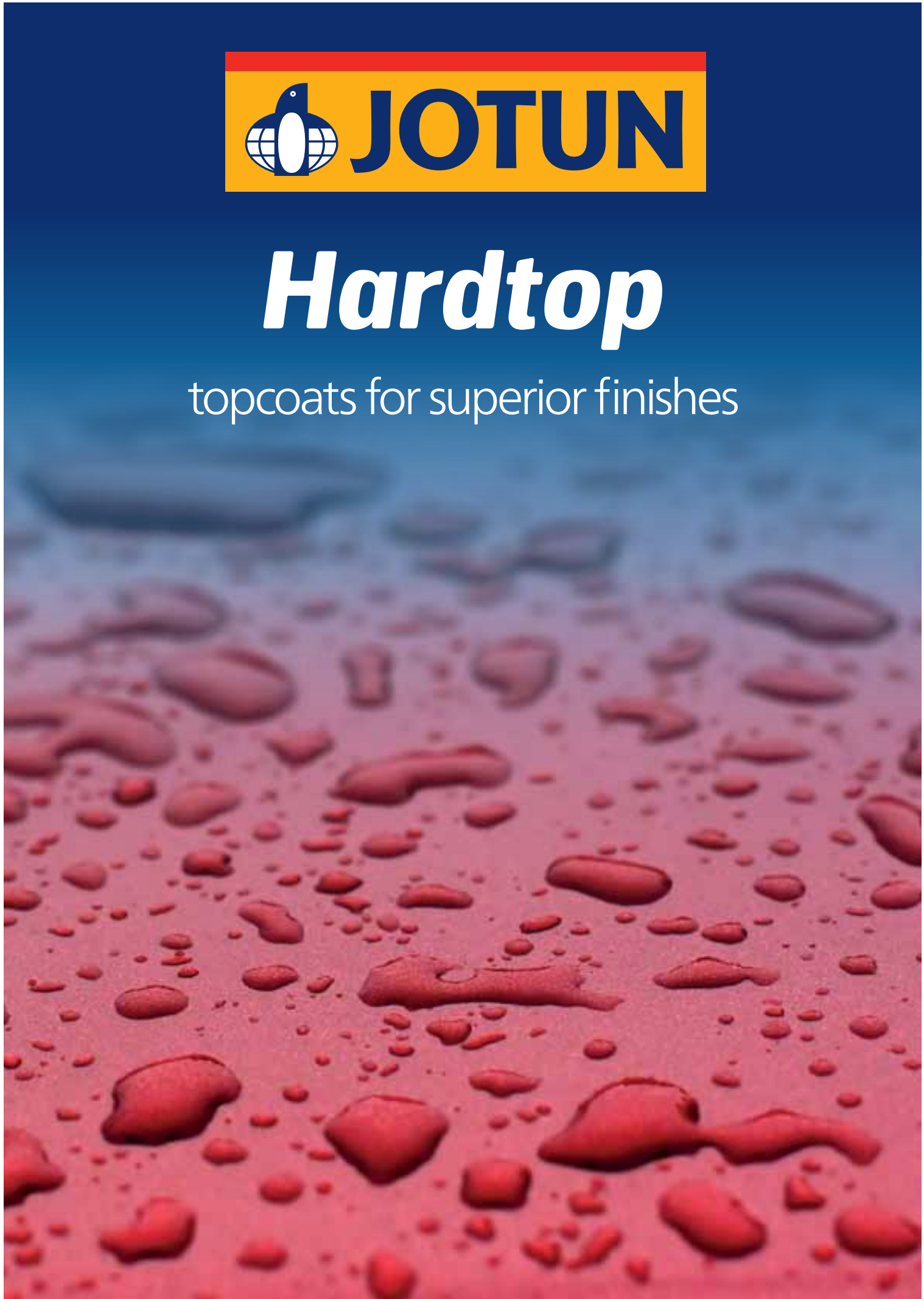




Hardtop

topcoats for superior finishes



Hardtop | TOPCOATS

Superior finishes for all structures

The premium topcoat brand

Jotun has supplied premium topcoats for heavy corrosion systems all over the world for decades. To make selection easier, Jotun has gathered all two component topcoats under the following umbrella brand - Hardtop. The number one selling technology platform today is polyurethanes, but we see increased interest for other technologies such as polysiloxanes and two component acrylics. All these technologies may be found under the Hardtop brand today.

Jotun customers today demand more than just good colour stability. Elements like abrasive resistance, flexibility, VOC levels and gloss retention are just as important. Jotun has thus taken these complex customer demands into consideration, and now offer different products and technologies to fill individual needs. We are certain that you will find products that cover your topcoat needs in this brochure.



Core products in the Hardtop range

- **Hardtop XP:** high solid polyurethane with excellent application properties
- **Hardtop Flexi:** flexible and impact resistant polyurethane
- **Hardtop AS:** high gloss polyurethane with excellent chemical resistant properties
- **Hardtop HB:** low gloss polyurethane
- **Hardtop Optima:** polysiloxane topcoat with excellent finish and gloss retention
- **Hardtop CA:** two-component isocyanate free acrylic with a wide colour range



Topcoat in a coating system

The topcoat must also be compatible with the anticorrosive primer system. Jotun is taking good care to secure good adhesion and appearance in the finished system. To ensure the success of the paint system it is important to use recommended primers and application data given in technical data sheets.



Hardtop | XP

The Number 1 selling polyurethane topcoat, retaining its gloss level over extended periods



Hardtop XP is one of the most popular polyurethane topcoats – protecting millions of square metres every year. It is available worldwide and is a favourite topcoat among painters. Hardtop XP is extremely versatile and can be applied by airless spray, brush or roller on a wide range of primers. Roller application properties are excellent with good flow and finish. Low dry spray makes the gloss level predictable and on-site friendly. Hardtop XP has great gloss and colour retention, and gives a better finish, less spills and lower paint consumption.

The Number 1 selling polyurethane topcoat for heavy corrosion systems

- Excellent colour and gloss retention
- Excellent application properties
- Excellent brush and roller application properties
- VOC compliant and high solids formulation

Hardtop | FLEXI

High standards of flexibility, durability, gloss and impact resistance

Hardtop Flexi is a high solids (64% volume) polyurethane topcoat with excellent wetting and adhesion properties. Hardtop Flexi has a remarkable ability to resist impact and will maintain initial gloss level over extended periods.

Low VOCs, application of single coats up to 150 microns and fast drying add to the features of Hardtop Flexi. This is one of the few products that contain anticorrosive pigments for best direct to metal performance.

Exceptional flexibility and impact resistance

- Can be applied in thick coats
- Great adhesion to most primers and substrates
- Direct to metal performance
- Contains anticorrosive pigmentation
- Slightly lower gloss level works as a 'hider of imperfections'
- Good gloss retention
- VOC compliant



Hardtop | AS

Decades of world proven performance



Hardtop AS is a topcoat with a very long track record. Millions of litres have been sold all around the world. This versatile polyurethane has been a favourite for decades and has proven performance. Hardtop AS is the best choice when great chemical or solvent performance is important.

A versatile topcoat for steel and other metals, concrete & plastics

- Excellent colour and gloss retention
- Good adhesion
- Good chemical resistance
- Well proven formulation

Hardtop | HB

Smooth low gloss finish



When a lower level of gloss is required Hardtop HB is a good choice.

Properties are similar to the well proven Hardtop AS, but with a lower gloss level.

The most popular low gloss polyurethane

- Smooth low gloss finish
- Possible to apply in higher film thickness
- 4:1 mixing ratio - easy to mix
- Low gloss hides imperfections in the surface

Hardtop | OPTIMA

Ultimate lasting gloss appearance

Hardtop Optima is a high solids product based on a polysiloxane resin with outstanding gloss and colour retention that provides superior corrosion protection. Hardtop Optima has optimal adhesion to selected primers, while maintaining its flexibility throughout the system's working life. Extra focus has been put on achieving a formulation that ensures predictable curing. The recommended selection of compatible primers is limited to enable a long-life world class system.

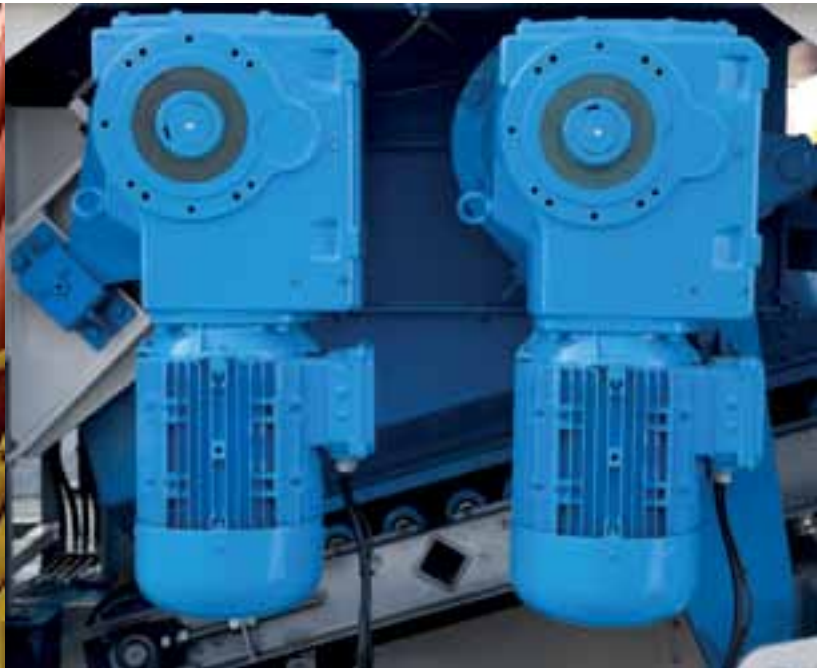
For long lasting performance

- Excellent colour and gloss retention
- Excellent VOC values
- Excellent finish
- Fast drying
- Long lasting flexibility formulation
- Urethane-free



Hardtop | CA

The acrylic alternative to a polyurethane topcoat



Hardtop CA is a two-component acrylic topcoat with good colour and gloss retention and is an excellent alternative to a polyurethane topcoat. This crosslinked acrylic has a predictable curing that is appreciated by customers. Hardtop CA is available in a wide range of colours through the MCI colour system.

Flexible, abrasion, chemical and water resistant

- Good weather resistance
- Isocyanate free
- Predictable curing
- VOC compliant

Hardtop

Topcoats for superior finishes

	Hardtop XP	Hardtop Flexi	Hardtop AS
Technology	Polyurethane	Flexible PU	Polyurethane
Gloss level	Glossy	Glossy	Glossy
Thinner	No. 10	No. 10	No. 10
Colours	Unlimited	Unlimited	Unlimited
Solids (volume %)	63% ± 2	64% ± 2	50% ± 2
DFT:			
Typical	60 µm	80 µm	50 µm
Dry	40-80 µm	50-150 µm	40-60 µm
Wet	65-130 µm	80-120 µm	80-120 µm
DRYING TIME (23°C):			
Surface dry	3h	1.5h	1h
Dry to recoat, min	6h	3h	5h
Mixing ratio	10:1	4:1	4:1
Potlife (+23°C)	1.5h	2h	4h
Flash point (Setaflash)	30°C ± 2	25°C ± 2	26°C ± 2
Gloss retention	Excellent	Very good	Excellent
Water resistance	Very good	Very good	Very good
Abrasion resistance	Good	Very good	Very good
Chemical resistance	Good	Very good	Very good
Flexibility	Very good	Excellent	Very good
VOC level (PG6)	320	340	415



Hardtop HB	Hardtop Optima	Hardtop CA
Polyurethane	Polysiloxane	2 K acrylic
Low gloss	Glossy	Glossy
No. 10	No. 7 or 17	No. 7 or 17
Unlimited	Unlimited	Unlimited
50% ± 2	76% ± 2	60% ± 2
80 µm	75 µm	75 µm
60-100 µm	60-100 µm	60-125 µm
120-200 µm	80-130 µm	100-210 µm
2h	3h	2.5h
6h	4h	5h
4:1	4:1	9:1
4h	6h	4h
26°C ± 2	30°C ± 2	28°C ± 2
Excellent	Excellent	Good
Very good	Very good	Very good
Very good	Very good	Good
Very good	Very good	Good
Very good	Good	Excellent
418	215	340



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Jotun Protects Property