

## Primax Xtend

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### PRODUCT DESCRIPTION

This Zinc-free powder coating is designed as a primer coat on blast-cleaned, phosphated and galvanized steel objects and structures. It combines a superior level of corrosion resistance with advanced mechanical properties, substantial material savings, excellent adhesion to substrate and inter-coat adhesion.

This product enables efficient application, good edge coverage and provides a uniform flow. For optimal corrosion protection and attractive surface appearance this product should be used in combination with suitable polyester coating. Recommended topcoat products include Jotun Facade, Corro-Coat PE and Tradex from Jotun.

This product contributes to the Green Buildings Standard credits. Please see section Green Building Standards.

### Application areas

Typical areas of application include building structures, agricultural machinery, steel fences, outdoor public areas and steel components present in coastal environments.

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### POWDER PROPERTIES

Property	Standard	Result
Specific gravity		1.65 ± 0.05 kg/dm <sup>3</sup>

### Storage

Keep in a dry cool area. Maximum temperature 25 °C. Maximum relative humidity 60 %. Under these mentioned conditions, product shelf life is 12 months from date of manufacture.

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### APPLICATION

#### Pretreatment

The overall quality of the coating system is largely dependent on the type and quality of surface preparation, pretreatment, and the topcoat. Recommended type of surface preparation is grit blasting which must be performed according to specification provided in Jotun's "Application Guide of Powder Coatings on Steel". Grit blasted surfaces are suitable to provide a moderate level of protection. For galvanized steel sweep blasting is recommended.

#### Chemical pretreatment

Available methods of pretreatment include zinc phosphating and chromating of galvanized steel. Recommended types of pretreatment depend on specific design requirements and on the need for corrosion resistance which is specified in the Performance section of the document.

### Powder application

The system is cured using either full or partial cure regimes for Primax Xtend.

Partial cure of the primer is recommended to enhance inter-coat adhesion between primer and a topcoat following the below schedule.

Curing schedule	Object temperature	Time
Full cure	180 °C	12 minutes
	200 °C	7 minutes
Partial cure	160 °C	7-12 minutes*
	180 °C	4-8 minutes*
	200 °C	2-5 minutes*

If primed substrates are partially cured, the application of a topcoat must take place no later than 12 hours at the same site after the application of this product. The shortest possible interval is recommended.

If the primed substrates are fully cured, then they can be temporarily stored for an extended period of time.

In both cases, the primed substrates must be stored away from sunlight, covered with a clean and clear plastic sheet, in a dust-free, cool and dry place.

The inter-coat adhesion properties and the complete system cure must always be verified. When directly fired gas ovens are used, sample of complete system needs to be tested to ensure inter-coat adhesion between the primer and a top coat. For the same reason it is also recommended not to exceed 200 °C oven temperature.

The most suitable partial cure time of the Primax Xtend at temperature selected from the given range is recommended to be defined by a practical experiment. That will help to secure the best decorative and functional performance, considering differences in coated objects and curing ovens.

\* Top coat is then applied and the system should be cured in accordance to the recommended curing schedules of the selected Jotun topcoat. Please refer to the relevant curing schedules.

### Equipment

Suitable for Corona or Tribo charging equipment.

## APPEARANCE

**Colour** Only available in light grey colour.

**Gloss** EN ISO 2813 (60°) 75± 15

If the significant surface is too small or unsuitable for the gloss to be measured with the glossmeter, the gloss should be compared visually with the reference sample (from the same viewing angle).

## PERFORMANCE

Property	Standard	Result
<b>Adhesion*</b>	EN ISO 2409 (2 mm)	Cross-cut rating Gt0 (100 % adhesion)
<b>Impact resistance*</b>	ASTM D2794 (5/8 " ball)	> 40 inch-pounds without film cracking
<b>Cupping test*</b>	EN ISO 1520	Passes 5 mm without film cracking
<b>Water condensation resistance</b>	ISO 6270-2	480 hours** 720 hours***
<b>Salt spray resistance</b>	ISO 9227 NSS	720 hours** 1440 hours***

<b>Sulfur dioxide corrosion testing in an alternating atmosphere with 0,2 I SO2</b>	ISO 3231	20 cycles / 480 hours** 30 cycles / 720 hours***
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\* Typical for this product when applied on zinc-phosphated steel panels (0.8 mm) with coating film thickness 70-90 µm using full cure schedule.

\*\* System 1: Grit blasted (Sa 2½) steel panels, Primax Xtend +Jotun Façade 2487. Total film thickness ~160 µm (primer 80 µm and 60-80 µm topcoat).

\*\* System 2: Grit blasted (Sa 2½) iron phosphated steel panels, Primax Xtend +Jotun Façade 2488. Total film thickness ~160 µm (primer 80 µm and 60-80 µm topcoat).

\*\*\* System 3: Grit blasted (Sa 2½) zinc phosphated steel panels, Primax Xtend +Jotun Façade 2488. Total film thickness ~160 µm (primer 80 µm and 60-80 µm topcoat).

\*\*\* System 4: Hot dip galvanized steel with chromate conversion layer, Primax Xtend+Jotun Façade 2487. Total film thickness ~160 µm (primer 80 µm and 60-80 µm topcoat). Salt spray resistance was not tested.

\*\*\* System 5: Hot dip galvanized steel with sweeping, Primax Xtend +Jotun Façade 2487. Total film thickness ~160 µm (primer 80 µm and 60-80 µm topcoat). Salt spray resistance was not tested.

Primax Xtend and Jotun's topcoats in combination with various methods of surface pretreatment provide the below levels of corrosion protection as per ISO 12944. For more details refer to Jotun's Steel Performance Matrix.

Grit Blasting Sa 2.5	Pretreatment	C3			C4			C5-M&I		
		low	medium	high	low	medium	high	low	medium	high
		<5 years	5-15 years	>15 years	<5 years	5-15 years	>15 years	<5 years	5-15 years	>15 years
x	-									
x	Iron Phosphate									
x	Zinc Phosphate									
	Galvanized Steel + Sweeping									
	Galvanized Steel + Chromating									

Tested by IFO: Institute for Surface technology, Germany 2015

## Approvals

### Green Building Standards

This product contributes to Green Building Standard credits by meeting the following specific requirements:

LEED®v4 (2013)

MR credit: Building product disclosure and optimization

- Material Ingredients, Option 2: Material Ingredient Optimization, International Alternative Compliance Path - REACH optimization: Fully inventoried chemical ingredients to 100 ppm and not containing substances on the REACH Authorization list – Annex XIV, the Restriction list – Annex XVII and the SVHC candidate list.

- Environmental Product Declarations. Product-specific Type III EPD (ISO 14025;21930, EN 15804).

BREEAM® International (2016)

Mat 01: Product-specific Type III EPD (ISO 14025;21930, EN 15804).

The EPDs are available at [www.epd-norge.no](http://www.epd-norge.no)

## Disclaimer

# Technical Data Sheet

## Primax Xtend



Jotun Protects Property

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The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.