

Primax Universal

PRODUCT DESCRIPTION

This zinc-free powder coating is designed as a primer for 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 to provide a uniform flow and compatible for direct fired ovens.

For optimal corrosion protection and attractive surface appearance, the primer should be used in combination with suitable outdoor durable Jotun Powder topcoats.

Recommended topcoat products include Jotun Super Durable, Jotun Facade, Reveal Era and other outdoor topcoats.

Application areas

Typical application areas:

- Building structures
- Agricultural machinery
- Steel fences
- Outdoor public areas
- Equipments exposed to coastal environments

POWDER PROPERTIES

Property	Standard	Result
Specific gravity	Calculated	Typically 1.7 g/cm ³ ± 0.05 g/cm ³

Storage

Keep in a dry cool area. When stored at a maximum 25 °C (77 °F) and maximum relative humidity 60%, a shelf life of 12 months is obtained from the date of manufacture.

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, chromating or zinc phosphating of galvanized steel. Recommended types of pretreatment depend on specific design requirements and on the need for corrosion resistance.

Powder application

Curing schedule	Object temperature	Time
Full cure*	180-200°C	10 minutes

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

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

*When the top coat is applied, the system should be cured in accordance to the recommended curing schedules of the selected Jotun topcoat. Please refer to the relevant curing schedules.

Recommended film thickness (μm): ≥ 60

Equipment

Suitable for Corona or Tribo charging equipment.

APPEARANCE

Colour	Grey	
Gloss	EN ISO 2813 (60°)	60-90
Finish	Smooth	

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
Adhesion*	EN ISO 2409	Cross-cut rating Gt0 (100 % adhesion)
Impact resistance*	ASTM D2794 (5/8 " ball)	> 40 inch-pounds without film cracking
Water condensation resistance	ISO 12944-6	480 hours** 720 hours***
Salt spray resistance	ISO 12944-6	720 hours** 1440 hours***

* Typical for this product when applied on zinc-phosphated steel panels (0.8 mm) with coating film thickness 60-80 μm using full cure schedule.

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

** System 2: Cold-rolled steel with iron phosphating panels, Primax Universal +Jotun Topcoat. Total film thickness ~160 μm (primer 80 μm and 60-80 μm topcoat).

*** System 3: Cold-rolled steel with silane panels, Primax Universal +Jotun Topcoat. Total film thickness ~160 μm (primer 80 μm and 60-80 μm topcoat).

*** System 4: Cold-rolled steel with zinc phosphating panels, Primax Universal +Jotun Topcoat. Total film thickness ~160 μm (primer 80 μm and 60-80 μm topcoat).

*** System 5: Electrolytic galvanized steel with zinc phosphating panels, Primax Universal +Jotun Topcoat. Total film thickness ~160 μm (primer 80 μm and 60-80 μm topcoat).

Notice:

The substrate and pre-treatment out of TDS should be tested by Jotun local lab before being used by customers.

Sustainability

Powder coating is applied in air-and-powder mix in a strictly controlled factory process using electrostatic gun and a high temperature curing oven to create film. Virtually no VOCs are released in the process compared to traditional liquid paints. Unused or oversprayed powder can be recycled with minimal wastage. In addition, all Jotun Powder Coatings' products do not contain intentionally added lead.

Disclaimer

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.