

# Product Datasheet



## BU Powder Coatings

**AkzoNobel**

Tomorrow's Answers Today

### Interpon PZ 790

#### Product Description

**Interpon PZ 790** is a powder coating primer containing zinc which is designed to give enhanced corrosion protection of mild steel. **Interpon PZ 790** has been designed to be overcoated with powder topcoats such as **Interpon TC**, **Interpon D1094**, **Interpon D1036**, **Interpon D2525** or **Interpon D2000**. In this datasheet, the **Interpon PZ 790** primer overcoated with a finish is termed the "**Interpon PZ 790** system".

#### Powder Properties

<b>Chemical type</b>	Thermosetting epoxy, rich in zinc
<b>Appearance</b>	Grey metallic, slightly granular film
<b>Particle Size</b>	Suitable for electrostatic spray
<b>Specific gravity</b>	1.8 – 2.2 g/cm <sup>3</sup>
<b>Storage</b>	Dry, cool conditions below 30°C
<b>Stoving schedule</b> (object temperature)	15 – 40 minutes at 110°C (green cure) 12 – 30 minutes at 130°C (green cure) 12 – 23 minutes at 160°C (minimum) 8 – 17 minutes at 170°C 2 – 8 minutes at 200°C 1 min. 30 sec. – 5 min 30 sec. at 220°C (maximum)

#### Tests

The results shown below are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions using a complete coating system and are given for guidance only. Actual product performance will depend upon the circumstances under which the product is used.

#### Mechanical tests

<b>Substrate</b>	Steel, 0.5 mm thick
<b>Pretreatment</b>	Cold trichloroethylene degreasing
<b>Film Thickness</b>	70± 10 µm
<b>Curing</b>	8 minutes at 200°C (PZ 790 alone) 2 minutes at 200°C (as primer for complete system)
<b>Powder Topcoat</b>	<b>Interpon D1036</b> (RAL9010)
<b>Curing</b>	8 minutes at 200°C
<b>Adhesion</b>	ISO2409 (2mm crosshatch) <b>Class 0</b> (PZ790 alone) <b>Class 0</b> (system)
<b>Erichsen Cupping</b>	ISO1520 <b>Pass 8mm</b> (PZ790 alone) <b>Pass 6mm</b> (system)
<b>Impact</b>	ISO6272 <b>Pass 0.5 kg.m</b> (PZ790 alone) <b>Pass 0.5 kg.m</b> (system)
<b>Flexibility</b>	ISO1519 (Cylindrical Mandrel) <b>Pass 4mm</b> (PZ790 alone) <b>Pass 5mm</b> (system) ISO6860 (Conical Mandrel) <b>No cracking</b> (PZ790 alone) <b>No cracking</b> (system)

#### Corrosion Tests

<b>Substrate</b>	Steel, 2mm thick
<b>Pretreatment</b>	As detailed in results tables in Appendix
<b>Film Thickness</b>	As detailed in results tables in Appendix
<b>Curing</b>	As detailed in results tables in Appendix

The **Interpon PZ 790** system provides excellent protection against corrosion on the surface to which it is applied. However the efficiency of this protection depends on the surface, its preparation before coating and the topcoat applied. If there is penetrating damage to the coating system, there may be localised signs of corrosion where damage has occurred but this will not affect the adhesion of the film to the adjacent surface. **Interpon PZ 790** considerably limits the extent of spread of corrosion in the event of coating damage.

<b>Neutral Salt Spray</b>	ISO9227	Results are detailed in Table 1 of Appendix
<b>Cycle 3 C</b>	Renault D17 1686	Results are detailed in Table 2 of Appendix

# Interpon PZ 790

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## Pretreatment

For maximum protection it is essential that **Interpon PZ 790** is applied to clean, dry, oxide-free ferrous metal surface, followed by **Interpon** topcoat. Surface preparation depends upon the type of surface, its condition and the required performance.

For good protection against corrosion the following is recommended:

**Grit blasting** to at least SA 2.5 in accordance with ISO 8501.1, 1998 (F), roughness equivalent to B9a, B10b, or B10a (Rz 35-65 µm; Ra 6 – 10 µm) using Rutogest n°3 LCA-CEA, in accordance with NFE 05051 (1981) and/or

**Degreasing & Phosphating** followed by passivation, rinsing with demineralised water and drying. Follow the procedural advice of the pretreatment supplier.

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## Application

**Interpon PZ 790** can be applied by manual or automatic, electrostatic spray equipment.

Tribo application is not recommended.

The application conditions given below are for information only:

<b>Fluidising air pressure:</b>	1.5kg/cm <sup>2</sup> initially then 1kg/cm <sup>2</sup>
<b>Transport air pressure:</b>	0.5 to 0.8 kg/cm
<b>Recommended voltage:</b>	65 to 70kV
<b>Recommended thickness:</b>	<b>70 microns (+50/-10)</b>

### Reclaiming Powder:

Trials, with suitable recycling equipment, must be carried out before commencing production. Attention should be paid to the ratio of new powder, a minimum of 80% must be used. Gun nozzles must be cleaned every 30 minutes.

**Interpon PZ 790** should be cured, or at least gelled, using the recommended stoving schedules, before application of the topcoat. The object temperature must not be below 110°C or above 220°C. The primer should be cured in a convection oven, optionally with infra-red heaters, with air temperature not exceeding 220°C.

***Note:** Failure to comply with the recommended curing conditions may affect the adhesion of the topcoat and cause degradation of the coating properties of the system. Parts coated with **Interpon PZ 790** should not be handled if possible. If handling is unavoidable, clean lint-free gloves must be worn.*

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## Topcoat Application

**Interpon PZ 790** should be overcoated on the same site within 12 hours of applying the primer. If the delay exceeds 12 hours the parts should be heated for 10 minutes at 120-150°C (object temperature). The delay must not exceed 24 hours. Refer to the Product Data Sheet for the powder topcoat for application parameters.

To ensure the integrity of the **Interpon PZ 790** system, as well as optimum performance, the whole system must be cured in accordance with the recommended curing conditions for the topcoat. Curing should be carried out in a convection oven, optionally with infra-red heaters. There must be a uniform heat distribution inside the oven.

***Note:** Failure to comply with the recommended final curing conditions may cause variations in colour and gloss and cause degradation of the coating properties of the system.*

A detailed protocol for applying **Interpon PZ 790** system is available on request.

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## Damage Repair

Any damage to the **Interpon PZ 790** system must be repaired as soon as possible.

### Surface preparation

Damaged areas must be clean and free of grease or rust. Dry-sand the area with 600-grade paper down to the substrate. The area must be completely free of dust and cleaned with a non-aggressive solvent before proceeding.

### Application

For repairs the following two-coat liquid paint system from International Protective Coatings is recommended:

**1<sup>st</sup> Coat** : two-pack zinc-rich epoxy primer, **Interzinc 72**  
**2<sup>nd</sup> Coat** : two-pack polyurethane topcoat, **Interthane 990**

*Product Data Sheets for these products can be obtained from International Protective Coatings at Felling (Tel: +44 (0) 191 469 6111) or the local office.*

**Safety Precautions** Please consult the Material Safety Datasheet (MSDS)

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**FOR PROFESSIONAL USE ONLY**

**IMPORTANT NOTE** The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product. Brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel