# Technical Datasheet

**INTERPON D3020**

Fluoropolymer (FEVE or PVF3) Powder Coatings

## Product description

**Interpon D3020** is a series of hyperdurable powder coatings designed to meet the most demanding architectural specification requirements in the world. AkzoNobel's Fluorocarbon technology uses innovative fluorocarbon (FEVE or PVF3) polymer chemistry that is designed to provide maximum gloss and color retention in service.

**Interpon D3020** is also designed to provide excellent cosmetic and functional protection whilst exploiting the recognized benefits of powder coatings complying with Qualicoat Class 3 and AAMA2605 and EN12206 specifications.

## Approvals

| | |
|---|---|
| **Qualicoat Approval** | P-1887 (Light) (TR)<br>P-1888 (Medium) (TR)<br>P-1889 (Dark) (TR) |
| **GSB Approval** | 246c |
| **Resistance to Fire Approval** | Classification: A2,s1,d0 with film thickness 50 - 70 µm (D3020) according to EN13501-1 |

## Powder properties

| | **Typical value** |
|---|---|
| **Chemical Type** | Fluoropolymer |
| **Appearance** | Smooth Matt |
| **Density** | 1.2 - 1.7 g/cm³, depending on colour |
| **Gloss (60°)** | 15 - 30 GU |
| **Particle size distribution** | Suitable for electrostatic spray. |
| **Shelf life** | 18 months below 25 °C |
| **Storage Conditions** | Under dry, cool (≤ 25°C) conditions<br>(open boxes must be resealed) |
| **Curing schedule** | 20 - 35 min at 190°C<br>15 - 25 min at 200°C<br>10- 15 min at 210°C<br>(object temperature) |

## Pre-treatment

Aluminium components should receive a full multi-stage chromate conversion coating or suitable chrome-free pre-treatment or suitable pre-anodising to clean and condition the substrate. Detailed advice should be sought from the pre-treatment supplier. For maximum protection it is essential to pre-treat components prior to the application of Interpon in accordance with the Interpon D Approved Applicator Manual.



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## Application

Powders can be applied by manual or automatic electrostatic spray equipment.
All powders can show small color differences from batch to batch, this is normal and unavoidable.
Bonded products have better application properties than blended products (more stable) but attention should still be paid to line settings in order to avoid “marble effect” and changes in aspect after recycling.
Products with different codes should not be mixed even if same colour and gloss.
While AkzoNobel take every precaution to minimize visible differences, this cannot be guaranteed.
Applicators and fabricators are advised to use a single batch for parts that will be assembled together. Differences are more likely with special effect powders.
For more information, it is suggested to read the Metallic Applications Guidelines.

| | |
|---|---|
| **Application Method** | Electrostatic |
| **Recycling** | A constant ratio between virgin and recycled powders should be fixed by the coater in order to achieve a consistent effect following the AkzoNobel rules.<br>Please consult AkzoNobel for further details as to the correct mixing ratio for virgin/reclaim powder.<br>Unused powder can be reclaimed up to a maximum of 20% using suitable equipment and recycled through the system. |

## Post application

For specific advice on the suitability of post coating processes such as bending or the use of sealants, adhesives, thermal break, cleaning etc. Please consult AkzoNobel.

## Test conditions

The results are based on mechanical and chemical tests which (unless otherwise indicated) have been carried out under laboratory conditions and are given for guidance only
Testing has been determined under laboratory conditions using the following application properties and is for guidance only.

| | |
|---|---|
| **Pre-treatment** | Chrome free Qualicoat/GSB approved pretreatment |
| **Substrate** | Aluminum (0.5-0.8 mm Al Mg1) |
| **Curing schedule** | 20 min at 200°C (object temperature) |
| **Film Thickness** | 50 - 80µm, ISO 2360 |

## Mechanical tests

| | Typical value | Method/standard |
|---|---|---|
| **Adhesion** | Class 0 | ISO 2409 (2 mm Crosshatch) |
| **Erichsen cupping** | Pass Qualicoat class 3 requirements | ISO 1520 |
| **Flexibility** | Pass Qualicoat class 3 requirements | ISO 1519 |
| **Impact resistance** | Pass Qualicoat class 3 requirements | ISO 6272-2 (d/r) |



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## Chemical and durability tests

| | Typical value | Method/standard |
|---|---|---|
| **Chemical Resistance** | Generally good resistance to acid, alkalis and oil at room temperatures. | |
| **Sulphur Dioxide Resistance** | Pass 24 cycles– no blistering, loss of gloss or discoloration | ISO 22479 |

## Environmental and durability tests

| | Typical value | Method/standard |
|---|---|---|
| **Acetic acid salt spray** | No blistering in excess of 2 (S2) according to ISO 4628-2. Infiltration <16 mm2 /10 cm, length of any single infiltration shall not exceed 3 mm., 2000 h | ISO 9227 |
| **Humidity** | No blistering in excess of 2 (S2) according to ISO 4628-2; the maximum infiltration at the cross is 1 mm, 2000 h | ISO 6270-2 CH (Constant humidity) |
| **Exterior durability** | Meets Qualicoat Class 3 and AAMA2605 requirements after 10 years of Florida exposure | ISO 2810 |
| **Mortar resistance** | No effect after 24 hours | EN 12206-1 |
| **Wet adhesion** | No sign of detachment or blistering. Cross-cut value 0. Colour change is acceptable. | Qualicoat/GSB |

## Maintenance

For specific advice on Cleaning and Maintenance, please consult the Interpon D series Cleaning and Maintenance Guidelines available from AkzoNobel.

## Repair

**Surface preparation** Please see details on Interpon D Repair producedure document

## Safety Precautions

This product is intended for use only by professional applicators in industrial environments and should not be used without reference to the relevant health and safety data sheet which Akzo Nobel has provided to its customers.

## Disclaimer



**http://www.interpon.com/contact-us/**



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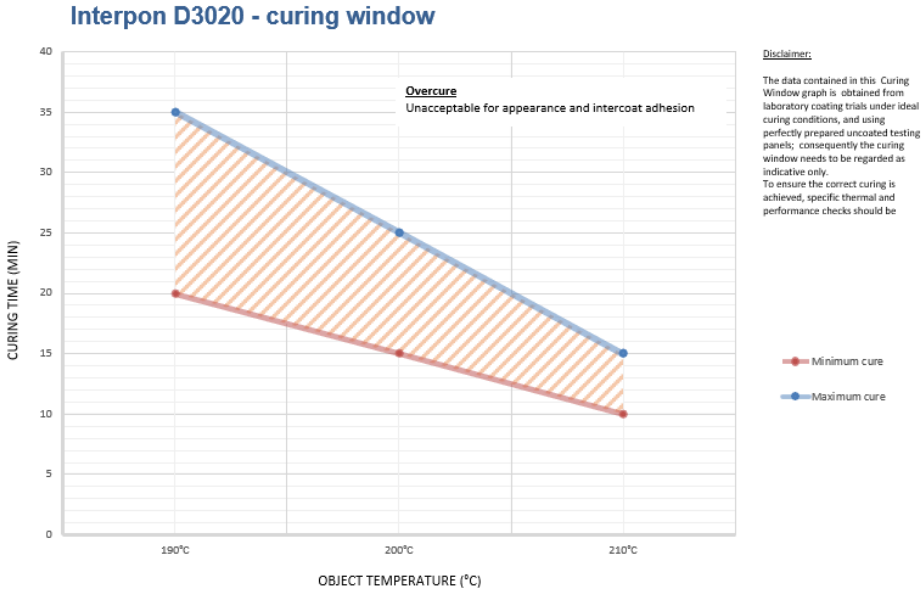
## Appendix

### Curing window



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