



FR-Series Powder Coatings

KwoLin FR-Series are super durable fluoropolymer powder coatings with excellent weatherability, physical resistance, and chemical resistance. They meet the requirements of high-end building materials and can be widely used in outdoor environments such as metal doors and windows.

Application and Storage Conditions:

- Oil, grease and rust should be removed by degreaser. Then zinc phosphate pretreatment is recommended for optimum performance.
- Use the electrostatic spray gun to application on substrates.
- The film should be cure on metal temperature at 200°C for **15** minutes.
- Film thickness should be controlled at 60~90 μm for high performance.
- Shelf life is six months when stored in dry conditions at 25°C.

Products Properties:

| Test Item | Test Method | Result |
|--|---------------|---|
| Specific gravity | By calculate | 1.4 \pm 0.3 |
| Film adhesion | ASTM D2605-13 | |
| Dry | | 100% |
| Wet | | 100% |
| Boiling water | | 100% |
| Impact resistance(5/8 ") | | 60in-lb no peel off |
| Dry film thickness(μm) CORONA film tester | | 60 ~ 90 μm |
| Dry film hardness | | H |
| Humidity resistance (100%RH,100°F, 3000 hrs) | | No corrosive |
| Detergent resistance (3%by weight) (100°F, 72h) | | No blister. No significant changes in appearance. |
| Chemical resistance Muriatic Acid Nitric Acid (ΔE) Mortar | | Color no change No effect. Color changes below 5E Color no change |
| Weather test (3000 hrs) | | |

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| Gloss retention (%) | ASTM G155-13 | Gloss retention >50% |
| Salt spray test (5%NaCl, 3000 hrs) | ASTM B117-11 | No blister. No Crack |

Tests were performed on Q-Panel AL36

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