

General Technical Information

Superdurable Polyester “SP” Series

Description

Erie’s “SP” series powder coatings are formulated using a combination of purified polyester resin, TGIC curative, and premium exterior durable pigmentation systems. The Superdurable finish is similar to a standard polyester finish, but the purified polyester resin and superior pigmentation allows for improved exterior durability and lightfastness. These powder coatings have excellent heat stability, adhesion, flexibility, and film smoothness. Superdurable coatings are designed to meet or exceed AAMA 2604 specifications. This specification stipulates a minimum of 30% gloss retention as well as a maximum colour deviation of 5 units Delta E after 5 years of exterior exposure. Polyester coatings, including these superdurable polyesters, are some of the most widely used products on the market due to their excellent performance across the widest array of metrics of any coatings.

Application

These products are used for a wide range of exterior applications. Typical usage of these coatings includes aluminum extrusions (doors and window frames), fencing, agricultural applications, exterior lighting and automotive trim parts.

Dry Powder Property Ranges

<i>Film Build</i>	1.2 to 4.5 mils (30 to 115 microns)
<i>Cure Schedule</i>	6 to 14 minutes at 375°F (190°C) metal temperature
<i>Particle Size</i>	50% to 65% > 32 micron (Alpine Jet Sieve)
<i>Overbake Resistance</i>	200% excellent, colour change less than 0.3 units
<i>Specific Gravity</i>	1.25 to 1.85
<i>Shelf Life</i>	6 to 12 months

Cured Film Property Ranges

<i>Gloss at 60° for Smooth Finishes</i>	12 to 95 for pigmented systems, 12 to 140+ for clears
<i>Impact Resistance (ASTM D2794)</i>	80 to 140 inch-pounds
<i>Pencil Hardness (ASTM D3363)</i>	H to 2H
<i>Cross Hatch Adhesion (ASTM D3359)</i>	5B full pass
<i>Flexibility (ASTM D522)</i>	180° ¼” conical mandrel with no cracking
<i>Salt Spray (ASTM B117)</i>	1000 hours with <1/8” creep from scribe line

Note: This information is given in good faith based upon information believed to be true at the time of issue. However, no warranty expressed or implied can be given as results may vary due to application and other conditions. This table is not intended to give exact specifications for any particular product but to be used only as a general guide.