

Z PIGMENTS

DayGlo Z Pigments, because of their good heat stability and smaller particle size (10-12microns), are recommended for plastics applications where dispersion is important (rotational molding is a good low-shear example that would benefit from a smaller particle size). They also offer good tinctorial strength and bright shades.

Available Colors:

Z-11	Aurora Pink*	Z-17	Saturn Yellow*
Z-12	Neon Red*	Z-18	Signal Green*
Z-13	Rocket Red*	Z-21	Corona Magenta*
Z-14	Fire Orange*	See ZQ	Horizon Blue*
Z-15	Blaze Orange*		

Chemical Nature & Dispersion Properties:

DayGlo Z Pigments are a solid solution of fluorescent dyes in a thermoplastic polyamide resin.

To ensure complete development of the fluorescent color effect, the Z Pigments must be completely melted and evenly distributed throughout the plastic system. The recommended minimum processing temperature is 370°F (190°C).

Additives:

Certain metal ions and nucleated polymers are known to cause color changes and loss of brightness with fluorescent colorants. Studies have shown that plastic processing additives containing "free" zinc, magnesium, calcium and iron will cause deleterious color effects when used in conjunction with Z Pigments.

If a metal containing additive must be used, it should be thoroughly tested to ensure the color stability of the Z Pigments. Also, refer to Technical Bulletin, "Effects of Metal Ions on Fluorescent Colorants in Plastics".

Heat Stability:

The heat stability of Z Pigments was tested on a four ounce injection molding machine. The maximum recommended processing temperature of Z Pigments is 575°F (300°C).

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Physical Properties:

Minimum Processing Temperature	370°F (190°C)
Heat Stability	575°F (300°C)
Softening Point	280°F-310°F (138°C-155°C)
Specific Gravity	1.14
Grind	4.0 Min Hegman Gage
Average Particle Size	10-12 Microns

Applications:

Polyethylene	+	PA (Nylon)	+/-
Polypropylene	+	Polycarbonate	+/-
Polystyrene	+	PMMA (Polyacrylic)	+/-
ABS	+/-	Rigid PVC	+/-
Ionomer	+/-	Urethane	+/-

+ Recommended

+/- Recommended, but should be tested in individual resins

Toxicity:

Toxicity tests have been conducted on Z Pigments with the following results:

Acute Oral Toxicity LD ₅₀	>15.38 g/kg
Acute Dermal Toxicity LD ₅₀	>3.00 g/kg
Acute Dust Inhalation LC ₅₀	Air 4 Hrs. = 2.88 mg/l
Eye Irritation	Mildly Irritating

DayGlo fluorescent pigments are organic compounds which are formulated without heavy metals.

11/12

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