

PROCESSING GUIDE FOR INJECTION MOLDING OF FLEXALLOY® COMPOUNDS

EQUIPMENT & CONDITIONS	SUGGESTIONS
Compound Drying	Typically not required.
Color Concentrate	PVC-based color concentrates.
Machine Type	Typical PVC injection molding equipment - stainless steel grade 420 or chromed tooling.
Screw Design	General purpose screw - chrome plated.
Compression Ratio	2:1 to 3:1
L/D Ratio	20:1 to 24:1
Gates	Liberal gating due to shear, thermal sensitivity and high viscosity of Flexalloy compounds.
Venting	Required at final fill points.
Ejection	Varies
Mold Cooling	Water cooling and temperature control for uniform heat removal. Typical range 50°F - 110°F.
Shot Size	At least 50% of the overall shot capacity.
Linear Shrinkage	0.010 to 0.025 inches/inch
Injection Pressure	Determined by cavity fill properties and part weight.
Injection Rate	Moderate
Back Pressure	50 - 150 psi
Hold Time	Varies

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SUGGESTIONS

Machine Temperatures

Hardness Range	Typical Barrel Settings	Melt Temperature Range
Shore A35 - 50	250°F - 310°F	335°F - 345°F
Shore A50 - 60	270°F - 330°F	345°F - 355°F
Shore A60 - 70	280°F - 340°F	355°F - 365°F
Shore A70 - 80	290°F - 360°F	365°F - 380°F

**Melt temperature should be measured using a hand held pyrometer.

Purging

If necessary, use HD polyethylene.

Regrind

Recyclable; mix up to 20% regrind with virgin.

Additional Considerations

Flexalloy compounds are thermal and shear sensitive materials. Care must be exercised to avoid excessive temperatures or delays during the molding process; material must not sit for more than 10 minutes under any circumstances.

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