

PROCESSING GUIDE FOR EXTRUSION OF FLEXALLOY® INSULATION COMPOUNDS

EQUIPMENT & CONDITIONS	SUGGESTIONS
Compound Drying	Typically not required. 160°F for 4 hours if desired.
Color Concentrate	PVC-based color concentrates.
Machine Type	Typical PVC extrusion equipment.
Screw Design	<p>A) General Purpose Metering Type</p> <p style="padding-left: 40px;">Metering Section 33%</p> <p style="padding-left: 40px;">Transition Section 33%</p> <p style="padding-left: 40px;">Feed Section 33%</p> <p>B) Barrier Maddock screw designed for PVC.</p>
Compression Ratio	3:1 target (2.5:1 to 3.5:1 range)
L/D Ratio	24/1 target (30/1 also OK)
Screen Packs	20/40/60 (up to 80 mesh OK)
Screw RPM	30 RPM minimum (choose extruder size to accomodate this)
Screw Cooling	Not Recommended
Water Bath	170°F in first trough to maximize physicals.
Tooling	<p>Cross-head: Low inventory cross-heads.</p> <p>Die Design: Tube (Sleeving) or Pressure Type. Matched tip and die angles for flow geometry and fairly tight together for optimum die pressure.</p> <p>Pressure Die: Size die 5% over final diameter for optimum speed and physicals with pressure set-up.</p> <p>Tubing Die: 2.0 - 5.0:1 DDR with 1.0 - 1.1 DDR target for tubing set-up.</p>
Copper Preheat	225°F - 250°F actual copper temperature entering the head for best results.

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EQUIPMENT & CONDITIONS

SUGGESTIONS

Machine Temperatures

Typical Barrel Settings	Melt Temperature Range
345°F - 375°F	380°F - 390°F

**Melt temperature should be measured using a pyrometer on the material exiting the cross-head.

Purging

If necessary, use HD polyethylene.

Regrind

Recyclable; mix up to 20% regrind with virgin.

Additional Considerations

Care must be taken to avoid excessive temperatures or delays during extrusion; material should not sit for more than 15 minutes under any circumstances.

Never leave extruder at elevated temperature without purging.

Never process with an actual melt temperature > 400°F.

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