

Recommended process parameters for casting Polyamides 6 of POLITEM

Melting temperature

Polyamide 6	Nozzle, °C	Front, °C	Center, °C	Rear, °C
Unfilled	240 - 280	245 - 280	240 - 270	225 - 260
Glass-Reinforced	270 - 300	270 - 300	260 - 290	250 - 280
Mineral-Reinforced	270 - 290	270 - 290	270 - 290	260 - 280
Impact-Modified	235 - 270	235 - 270	230 - 260	225 - 255
Flame Retardant	245 - 265	230 - 260	220 - 245	220 - 245
Glass-Fiber/Mineral-Reinforced	275 - 290	275 - 290	275 - 290	260 - 280

Processing and equipment recommendations

Mold temperature	40 - 80°C
Screw speed	30 - 75 RPM
Back pressure	25 - 100 psi (1,72 - 6,9 bar)
Injection speed	2 - 3 inches/second
Hold pressure	30% of injection pressure
Cooling time	10 - 40 seconds
Screw type	bimetallic screw L/D Ratio = 20:1

Startup and shutdown recommendations

Drying	Polyamide 6 resins are hygroscopic and absorb moisture from atmosphere. The moisture content is an important parameter which has direct effect on molding, properties and appearance of the final product. The moisture content before molding should not exceed 0,15%. Pre-drying for 3-4 hours at 80°C with dry air is recommended.
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