CELCON® M90 Acetal (Natural) Process Sheet

1. Drying (if needed)

• Recommended? Generally not required, since Acetal is not hygroscopic. However, drying may help if handling or regrind suggests moisture risk.
• Drying Conditions: ~180 °F (80 °C) for 3–4 hours.

2. Injection Molding Settings

• Melt / Processing Temperature: Preferred 360–390 °F (182–199 °C). Absolute maximum 450 °F (230 °C).

• Barrel (Zone) Temperatures:
- Rear: 338–356 °F (170–180 °C)
- Middle: 356–374 °F (180–190 °C)
- Front: 356–374 °F (180–190 °C)
- Nozzle / Injection Zone: 374–392 °F (190–200 °C)

• Mold Surface Temperature:
- Standard: 180–200 °F (82–93 °C)
- For thick sections: cooler molds ~150 °F (65 °C), or as low as 80 °F (27 °C) for very thick parts
- For reduced stress / high surface finish: up to 250 °F (120 °C)

3. Additional Process Notes

• Melt Temperature Capability: 356–374 °F (180–190 °C)
• Flow Temperature (lower bound): ~345 °F (174 °C)
• Safety Limits: Never exceed 460 °F (238 °C). Do not keep above 380 °F (193 °C) for more than 15 minutes without purging to prevent discoloration and formaldehyde release.

4. Summary Table (°F)

Parameter	Range
Drying temperature (if used)	~180 °F for 3–4 hours
Melt / Processing temp. (typical)	360–390 °F
Melt max (absolute limit)	450 °F

Barrel zones (rear to nozzle)	338–392 °F
Mold surface (typical)	180–200 °F
Mold surface (thick parts)	~150 °F or as low as 80 °F
Mold surface (stress/high gloss)	Up to 250 °F
Safety max heating	Never >460 °F; purge if >380 °F for >15 min