



Ecomass Compounds

Base Resin

NYLON 12 Alloys
(Polyamide 12)

Compound Type

Ecomass Compound 1050, 1066, and 1080 Series - High Density

Processing Method

Injection Molding

Process Guidelines

Processing Conditions

- Melt Temperature Range..... 250 - 260C (475 - 500F)
- Mold Temperature Range..... 60 - 85C (135 - 185F)
- Injection Pressure..... As required
- Pack (Hold) Pressure..... 65 - 80% of IP
- Back Pressure..... 3 -7 bar (50 - 100 psi)
- Injection Speed..... Medium - Fast
- Screw Speed..... 50 - 100 rpm
- Fill Time..... 2.5 - 5 cm/s (1 - 2"/s)
- Pack (Hold) Time²..... Max. part weight
- Cooling Time..... As required
- Cushion..... 6 - 12mm (0.25 - 0.50 in.)

Material Drying

- Dryer Type(s)..... Dehumidifying
- Drying Temperature Range... 75 - 80C (165 - 175F)
- Typical Drying Time¹..... 4 - 6 hours
- **Do Not Exceed..... 95C (200F), >3 hrs**
- Dryer Dew Point..... -30 to -40C
- Minimum Air Flow..... 0.8 - 1.0 CFM
- Properly Functioning..... Dessicant Beds
Filters
Volatiles Trap

Molding Machine Requirements

- Screw L/D..... 20:1 min.
- Screw Compression Ratio.... 2.5:1 min.
- Feed Throat..... Cooled
- Nozzle Type..... Reverse taper
- Check Ring Type..... Free flow
- Typical Clamp Tonnage..... 2.5 - 4.0 tons/in²

Safety / Purging

- Maintain adequate ventilation.
- Wear safety glasses & protective clothing.
- Do not mix with other materials.
- Avoid excessive residence time in the barrel.
(Purge if extended residence time is anticipated)
- **Use extreme caution at melt temp. > 350C**

Abrasion Resistant Screw, Barrel & Check Ring

Purge with high viscosity HDPE or high temperature commercial purge compound as recommended.

Notes

¹ Typical Drying time assumes unopened packaging and utilization of a dehumidifying dryer with a dewpoint of -40° with sufficient air flow.

² Pack time can depend on wall thickness and gate design

Material must be dried to a Moisture Level of < 0.2% for best property retention

The processor of these materials is advised and cautioned to make an independent determination and assessment of the safety and suitability of the material for the specific use in question and is further advised against relying on the information herein as it may relate to any specific use or application. Because conditions under which this material may be processed, tested or used cannot be anticipated, no warranty is given, either expressed or implied, as to the accuracy or reproducibility of this information or for the fitness of this material for any particular use. This material is sold with the express understanding that purchasers, processors or other users of this material have sole responsibility, through performance of their own testing, to determine the suitability of this material for any particular use.