

Processing Conditions

Nylon 6/12 (PA) — RTP 200D Series Specialty Compounds

| Temperatures Rear zone 485 - 515 °F 252 - 268 °C Center zone 495 - 525 °F 257 - 274 °C Front zone 500 - 535 °F 260 - 279 °C Melt 480 - 545 °F 249 - 285 °C Mold 140 - 200 °F 60 - 93 °C Pressures Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Typical Injection Molding Conditions | English | SI Metric | |
|---|---|---------------|-----------------------|--|
| Center zone 495 - 525 °F 257 - 274 °C Front zone 500 - 535 °F 260 - 279 °C Melt 480 - 545 °F 249 - 285 °C Mold 140 - 200 °F 60 - 93 °C Pressures Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Temperatures | _ | | |
| Front zone 500 - 535 °F 260 - 279 °C Melt 480 - 545 °F 249 - 285 °C Mold 140 - 200 °F 60 - 93 °C Pressures Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Rear zone | 485 - 515 | °F 252 - 268 ℃ | |
| Meit 480 - 545 °F 249 - 285 °C Mold 140 - 200 °F 60 - 93 °C Pressures Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds End 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Center zone | 495 - 525 | °F 257 - 274 °C | |
| Mold 140 - 200 °F 60 - 93 °C Pressures Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Front zone | 500 - 535 | °F 260 - 279 °C | |
| Pressures Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Image: Screw 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Image: Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Melt | 480 - 545 | °F 249 - 285 °C | |
| Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Mold | 140 - 200 | °F 60 - 93 °C | |
| Injection 10000 - 18000 psi 69 - 124 MPa Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | | | | |
| Hold 8000 - 12000 psi 55 - 83 MPa Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Image: Screw 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Image: Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Pressures | | | |
| Back 50 - 100 psi 0.34 - 0.69 MPa Speeds Image: Screw 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Image: Screw Image: Screw Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Injection | 10000 - 18000 | psi 69 - 124 MPa | |
| Speeds 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Hold | 8000 - 12000 | psi 55 - 83 MPa | |
| Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Back | 50 - 100 | psi 0.34 - 0.69 MPa | |
| Fill 1 - 3 in/sec 25 - 76 mm/sec Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | | | | |
| Screw 60 - 90 rpm 60 - 90 rpm Drying Time & Temperature 4 Hrs @ 175 °F 4 Hrs @ 79 °C Dew Point 0.0 °F -18 °C | Speeds | | | |
| Drying Time & Temperature 4 Hrs @ 175 ℉ 4 Hrs @ 79 ℃ Dew Point 0.0 ℉ -18 ℃ | Fill | 1 - 3 | in/sec 25 - 76 mm/sec | |
| Time & Temperature 4 Hrs @ 175 ℃ 4 Hrs @ 79 ℃ Dew Point 0.0 ℉ -18 ℃ | Screw | 60 - 90 | rpm 60 - 90 rpm | |
| Time & Temperature 4 Hrs @ 175 ℃ 4 Hrs @ 79 ℃ Dew Point 0.0 ℃ -18 ℃ | | | | |
| Dew Point 0.0 𝑘 -18 𝔅 | Drying | | | |
| | Time & Temperature | 4 Hrs @ 175 | °F 4 Hrs @ 79 ℃ | |
| Moisture Content 0.20 % 0.20 % | | 0.0 | ° -18 ℃ | |
| | Moisture Content | 0.20 | % 0.20 % | |
| | | | | |

Notes

- This information is intended to be used only as a guideline for designers and processors of modified thermoplastics for injection molding. Because injection mold design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.
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