

Xytron™ G4020DW–FC

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This quick start instruction gives an indication of the key settings for processing Xytron™ G4020DW–FC to ensure best crystallization and prevent material degradation as a result of hydrolysis or thermal load. It is a summary of the Injection Molding Recommendations which can be found in our Plastics Finder at <https://envalior.plasticsfinder.com>. Our online guidelines are recommendations to help with material processing and/or to evaluate and resolve potential processing issues.

MATERIAL HANDLING

Drying

Hot air ovens or hopper driers can be used for pre–drying Xytron™ grades, however preferred driers are de–humidified driers with dew points maintained between –30 and –40°C / –22 and –40°F. Vacuum driers with N₂ purge can also be used.

| Moisture content | Time | Temperature | |
|------------------|------|-------------|---------|
| [%] | [h] | [°C] | [°F] |
| as delivered | 2–6 | 130–140 | 266–284 |

TEMPERATURE SETTINGS

Barrel temperature

Optimal settings are governed by barrel size and residence time. Furthermore, the level of glass and/or mineral reinforcement has to be taken into account.

| Mold/Tool | Measured melt | Nozzle | Front | Center | Rear | |
|----------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|--|
| 140 – 150°C 284 – 302°F | 310–340°C 590–644°F | 310–340°C 590–644°F | 320–340°C 608–644°F | 310–330°C 590–626°F | 300–320°C 572–608°F | |

MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for Xytron™ G4020DW–FC is ≤ 6 minutes with preferably at least 50% of the maximal shot volume used. The MRT should not exceed 8 minutes. A full self–service MRT calculation can be done using the following [link](#).

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