## Recommendations for injection molding



# *Xytron™ G3010E*

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This quick start instruction gives an indication of the key settings for processing Xytron™ G3010E 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

Hot air ovens or hopper driers can be used for pre–drying Xytron<sup>™</sup> grades, however preferred driers are de-humidified driers with dew points maintained between -30 and -40°C / -22 and -40°F. Vacuum driers with N<sub>2</sub> 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			
	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<sup>™</sup> G3010E 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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