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This quick start instruction gives an indication of the key settings for processing Arnitel[®] XGØ1JK 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

Arnitel® grades are hygroscopic and absorb moisture from the air relatively quickly. Moisture absorption is fully reversible under the following drying conditions without compromising material quality. 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. Hot air ovens or hopper driers are not suitable for pre-drying Arnitel® grades; the use of such driers may result in non-optimum performance.

Moisture content	Time	Temperature		
[%]	[h]	[° C]	[° F]	
<0.1 and as delivered	3–4	90	195	
>0.1	4–6	90	195	

TEMPERATURE SETTINGS

Barrel temperature

The given temperature settings are general for Arnitel[®]. Optimal settings are governed by barrel size and residence time.

Additionally, a higher hardness and higher melting point of the Arnitel®, requires a barrel temperature at the higher side.

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Mold/Tool	Measured melt	Nozzle	Front	Center	Rear	
20 – 50°C 68 – 122°F	190–240°C 374–464°F	190–230°C <i>374–446°F</i>	190–215°C <i>374–419°F</i>	180–200°C 356–392°F	150–180°C <i>302–356°F</i>	

# MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for Arnitel[®] XG01JK is  $\leq$  5 minutes with preferably at least 50% of the maximal shot volume used. The MRT should not exceed 6 minutes. A full self–service MRT calculation can be done using the following link.

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Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.