

# Arnitel® EM400 B–MB

Print Date: 2024–07–03

This quick start instruction gives an indication of the key settings for processing Arnitel® EM400 B–MB 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 N<sub>2</sub> 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	
		[°C]	[°F]
<0.05 and as delivered	3–4	100	212
>0.05–0.2	4–6	100	212

## 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.

Mold/Tool	Measured melt	Nozzle	Front	Center	Rear
20 – 50°C 68 – 122°F	220–240°C 428–464°F	220–240°C 428–464°F	210–230°C 410–446°F	200–220°C 392–428°F	190–210°C 374–410°F

## MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for Arnitel® EM400 B–MB is ≤ 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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