

Arnitel® EL150

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Arnitel EL150 is a very low modulus grade with nominal hardness of 20D. Material can be processed by many conventional thermoplastics processing techniques such as injection molding. It is important to note that in a certain periods, clumps can be formed due to excessive storage conditions such as packing type, stacking, extreme temperature. Pl. refer injection molding recommendations Food contact use – Not Applicable.

This quick start instruction gives an indication of the key settings for processing Arnitel® EL150 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	
		[°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	190–210°C 374–410°F	190–210°C 374–410°F	180–200°C 356–392°F	170–190°C 338–374°F	160–180°C 320–356°F

MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for Arnitel® EL150 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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