

# Akulon® GA–XLG0

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This quick start instruction gives an indication of the key settings for processing Akulon® GA–XLG0 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

Akulon® 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 Akulon® grades; the use of such driers may result in non-optimum performance.

Moisture content	Time	Temperature	Temperature
[%]	[h]	[°C]	[°F]
0.1 – 0.2	4 – 5	80	176
0.2 – 0.8	6 – 8	80	176

Higher drying temperatures may be required for better surface aesthetics. Temperatures higher than 100°C / 212°F should be prevented.

## TEMPERATURE SETTINGS

### Barrel temperature

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

Mold/Tool	Measured melt	Nozzle	Front	Center	Rear
50 – 80°C 122 – 176°F	270–295°C 518–563°F	280–290°C 536–554°F	280–295°C 536–563°F	275–290°C 527–554°F	265–285°C 509–545°F

## MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for Akulon® GA–XLG0 is ≤ 6 minutes with preferably at least 50% of the maximal shot volume used. The MRT should not exceed 10 minutes.

A full self-service MRT calculation can be done using the following [link](#).

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