

Arnite® A02 307

Print Date: 2024-07-04

This quick start instruction gives an indication of the key settings for processing Arnite® A02 307 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

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.

Moisture content	Time	Temperature	
		[°C]	[°F]
as delivered	3-6	100-120	212-248
open bag	3-12	100-120	212-248

Warm, dried granules should be prevented from cooling down and coming into contact with ambient air before entering the cylinder. Pellets should be fed with hot dried air straight from the hopper drier into the cylinder or via a closed loop system using hot dried air, from the stand-alone drier into the cylinder.

TEMPERATURE SETTINGS

Barrel temperature

Optimal settings are governed by barrel size and residence time. Furthermore, the level of glass reinforcement and the presence or absence of flame retardant have to be taken into account. As a standard, a flat or a slightly increasing temperature profile should be applied. For flame retardant materials a flat profile is recommended.

Mold/Tool	Measured melt	Nozzle	Front	Center	Rear
130 – 140°C 266 – 284°F	270–290°C 518–554°F	270–290°C 518–554°F	270–290°C 518–554°F	270–290°C 518–554°F	270–280°C 518–536°F

MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for Arnite® A02 307 is ≤ 8 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](#).

All the trademarks mentioned here are trademarks of Envalior. Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon. Seller makes no other representations or warranties, whether express or implied. Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

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.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.