Stanyl® TS272A1

Print Date: 2024–04–10

This quick start instruction gives an indication of the key settings for processing Stanyl® TS272A1 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://plasticsfinder.com. Our online guidelines are recommendations to help with material processing and/or to evaluate and resolve potential processing issues.

MATERIAL HANDLING

Drying

Stanyl® 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_2 purge can also be used. Hot air ovens or hopper driers are not suitable for pre–drying Stanyl® grades; the use of such driers may result in non–optimum performance.

Moisture content	Time	Temperature	
[%]	[h]	[°C]	*[°F]*
0.1 – 0.2 and as delivered	2	80	*176*
0.2 – 0.5	4 – 8	80	*176*
>0.5	<100 or 24	80 105	*176* *221*

TEMPERATURE SETTINGS

Barrel temperature

Optimal settings are governed by barrel size and residence time. Due to the high melting point of Stanyl® this temperature should be set high enough to provide a homogeneous melt without getting too near to the degradation temperature of 330°C / 626°F. A flat or rising temperature profile is recommended.

Mold/Tool	Measured melt	Nozzle	Front	Center	Rear	
80 – 120°C *176 – 248°F*	305–320°C *581–608°F*	300–320°C *572–608°F*	300–320°C *572–608°F*	300–320°C *572–608°F*	280–320°C *536–608°F*	

MELT RESIDENCE TIME

The optimal Melt Residence Time (MRT) for Stanyl® TS272A1 is ≤ 4 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.

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.