

Product Specification

VESTOSINT® 3D Z2773

3D-PRINTING: WE HAVE THE RIGHT MATERIALS

Evonik has developed and produced special plastic materials, which allow for the industrial production of high-tech components in using 3D printing technologies for years. Polyamide 12-based powders VESTOSINT® convince with their high quality and processing capabilities, and the property profile of each powder is perfectly matched to the respective 3D printing technology.

Due to their mechanical properties and chemical resistance as well as the high melting point of finished products, PA12 powders are particularly suitable for use in powder-based 3D printing processes.

CUSTOM POLYMER POWDER CERTIFIED FOR HP JET FUSION 3D PRINTERS

VESTOSINT® is a modified polyamide-based powder that is produced at Evonik's Marl site in Germany using the company's own special process. The powders are certified for HP Jet Fusion 3D printer.

VESTOSINT® 3D Z2773 is listed with respect to its monomers / additives in the Regulation [EU] No 10/2011 and its amendments. Furthermore VESTOSINT® 3D Z2773 complies with the food contact regulation in the USA FDA, 21 CFR, §177.1500 (a) (9) (Nylon 12 resins). For more information on restriction, please ask for our detailed statements.



Image © Copyright 2017 HP Development Company, L.P.

GENERAL PROPERTIES OF VESTOSINT® 3D Z2773

Property	Test method	Unit	Value
Bulk density	ISO 1183	g/cm ³	460
Particle size, d10	ISO 8130/13	µm	26
Particle size, d50		µm	57
Particle size, d90		µm	83
Relative solution viscosity (m-Kresol, acid measured)	ISO 307	-	1.59
DSC Melting point 1st heating, 20 K/min	ISO 11357	°C	187

Mean values - based on a statistical evaluation



MECHANICAL PROPERTIES OF VESTOSINT® 3D Z2773

Property	Test method	Unit	Value
Tensile Strength, Max Load ⁴ – XY	ASTM D638	MPa/psi	48/6960
Tensile Strength, Max Load ⁴ – Z	ASTM D638	MPa/psi	48/6960
Tensile Modulus ⁴ – XY	ASTM D638	MPa/ksi	1 700/245
Tensile Modulus ⁴ – Z	ASTM D638	MPa/ksi	1 800/260
Elongation at Break ⁴ – XY	ASTM D638	–	20
Elongation at Break ⁴ – Z	ASTM D638	%	15

⁴ Test results realized under the ASTM D638, specimens type V and provided by HP Inc. for informational purposes only.

VESTOSINT® is a registered trademark of Evonik Degussa GmbH

The HP logo and HP Jet Fusion 3D are trademarks of HP. Used by permission.

This information and any recommendations, technical or otherwise, are presented in good faith and believed to be correct as of the date prepared. In no event shall Evonik assume liability for damages or losses of any kind or nature that result from the use of or reliance upon this information and recommendations. The Certified for HP Jet Fusion 3D Materials have not been designed, manufactured or tested by HP or Evonik for compliance with legal requirements and recipients are responsible for making their own determination as to the suitability of Vestosint 3D Z2773 for their purposes and uses, including but not limited as regards direct or indirect food contact applications. Nothing herein should be construed as constituting any kind of warranty from HP or Evonik. Neither HP nor Evonik shall be liable for technical or editorial errors or omissions contained herein and the information herein is subject to change without notice. EVONIK EXPRESSLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, AS TO THE ACCURACY, COMPLETENESS, NON-INFRINGEMENT, MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE) WITH RESPECT TO ANY INFORMATION AND RECOMMENDATIONS PROVIDED.

Evonik Resource Efficiency GmbH
High Performance Polymers
Paul-Baumann-Straße 1
45772 Marl/Germany

Phone +49 2365 49-9227
evonik-hp@evonik.com
www.vestosint.com