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.



## GENERAL PROPERTIES OF VESTOSINT® 3D Z2773

| Property | Test method | Unit | Value |
|---|---|---|---|
| Bulk density | ISO 1183 | g/cm3 | 460 |
| Particle size, d10<br>Particle size, d50<br>Particle size, d90 | ISO 8130/13 | µm<br>µm<br>µm | 26<br>57<br>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 | 1700/245 |
| Tensile Modulus[4] – Z | ASTM D638 | MPa/ksi | 1800/260 |
| 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.



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Certified for HP Jet Fusion 3D printers

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