Material data sheet for High Speed Sintering (HSS)

**MATERIAL DATA** | Test Standard | PA12 | PP* |
---|---|---|---|
Part density | voxeljet method | 1,0 g/cm³ | 0,85 g/cm³ |
Tensile strength XY | ISO 527 - 1A | 45 MPa | 27 MPa |
Elongation at break XY | ISO 527 - 1A | 12 % | 45 % |
Tensile strength Z | ISO 527 - 1A | 30 MPa | 25 MPa |
Elongation at break Z | ISO 527 - 1A | 5 % | 12 % |
Young Modulus | ISO 527 - 1A | 1173 MPa | 984 MPa |

**MATERIAL DATA** | Test Standard | TPU* |
---|---|---|
Part density | voxeljet method | > 1,12 g/cm³ |
Tensile strength | ISO 527 - 5A | 3 - 7 MPa |
Elongation at break | ISO 527 - 5A | 200 - 500 % |
Shore hardness A | ISO 868 | ≥ 75 |
Young Modulus | ISO 527 - 5A | 3 - 35 MPa |

* Various materials - availability on request
All data refer to fresh powder.

**APPLICATIONS OF HSS**

- Functional production parts
- Automotive
- Aerospace
- Sports & leisure
- Consumer goods & electronics
- Interior design
- Packaging
- Design models

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VX200 HSS

With High Speed Sintering we give our customers incredible flexibility and customization of the additive manufacturing process of functional polymer parts. By using the High Speed Sintering process, customers can achieve properties similar to injection moulding and freely adjust all system parameters to a wide variety of qualified materials or can individually tailor the process settings to qualify own materials. Whether it’s PA12, PP, TPU etc., the material of choice can be changed within minutes for increased efficiency and flexibility of polymer part production.

System Features

- Fully customizable process parameters: in-house material development possible.
- Full access to telemetric data for optimal material process interaction.
- Industrial inkjet printheads for industry leading reliability.
- Constant layer times with high resolution and detail.
- Binder Jetting technology allowing for scalability.

Technical Data

<table>
<thead>
<tr>
<th>PRINTING PROCESS</th>
<th>HSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build space LxWxH</td>
<td>290 x 140 x 180 mm</td>
</tr>
<tr>
<td>Medium grain size</td>
<td>55 µm - 1 mm</td>
</tr>
<tr>
<td>Layer thickness</td>
<td>&gt; 80 µm (adjustable)</td>
</tr>
<tr>
<td>Print resolution x, y</td>
<td>360 dpi</td>
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</tbody>
</table>