

# High Speed Sintering

## HSS



### Material data

	Test Standard	PA12**	PP*
Young's Modulus (XY)	ISO 527 - 2:93 - 1A	1716 ± 89 MPa	984 MPa
Young's Modulus (Z)	ISO 527 - 2:93 - 1A	1725 ± 59 MPa	-
Tensile Strength (XY)	ISO 527 - 2:93 - 1A	52 ± 1 MPa	27 MPa
Tensile Strength (Z)	ISO 527 - 2:93 - 1A	46 ± 2 MPa	25 MPa
Elongation At Break (XY)	ISO 527 - 2:93 - 1A	10 ± 1 %	45 %
Elongation At Break (Z)	ISO 527 - 2:93 - 1A	5 ± 1 %	12 %

	Test Standard	TPUs*
Part density	voxeljet method	> 1.12 g/cm <sup>3</sup>
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

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**RICOH**  
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\*Various materials - available on request. All data refer to fresh powder.

\*\*All data refer to a refresh rate of 20%

### Applications of HSS

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

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**290 mm**  
build space

**360 dpi**  
print resolution x, y

**55  $\mu$ m - 1 mm**  
medium grain size

### 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 sys-

tem 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

#### Printing process HSS

Build space LxWxH	290 x 140 x 180 mm
Medium grain size	55 $\mu$ m - 1 mm
Layer thickness	> 80 $\mu$ m (adjustable)
Print resolution x, y	360 dpi