

EOS StainlessSteel 316L VPro High Volume Production



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High Volume Production

This material together with the HiPro process parameters were designed for high volume production. They offer a high productivity of 316L parts on the EOS M 290.

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Main Characteristics

- Part properties similar to conventionally manufactured 316L
- → Up to 11 mm³/s build rate
- Very cost efficient
- Variable options in development

Typical Applications

316L is a very widely used material in multiple applications and industries. This AM process parameter is developed specifically for volume production, yet enabling complex structures. Hence, it has high potential to replace press and sinter production.

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Key parameters		
Current TRL	3	
Target TRL	open	
System	EOS M 290	
Material	EOS StainlessSteel 316L VPro	
Process	HiPro with 60 μm layer thickness	

	EOS StainlessSteel 316L		EOS StainlessSteel 316L VPro
	Surface 20 µm	FlexLine 40 µm	VPro 60 µm
Productivity	•	• •	••••
Cost per part	•	• •	• • • •
Mechanical properties	• • • •	• • • •	• • •
Detail resolution	• • • •	• • • •	• •
Density	•••	••••	• • •

Typical part properties

	Rm	Rp0.2	Α
Mechanical properties vertical	540 MPa	410 MPa	19,5 %
Mechanical properties horizontal	530 MPa	430 MPa	13,5 %
Surface roughness vertical	Typical 10 Ra		

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The quoted values refer to the use of this material with above specified type of EOS DMLS system, EOSYSTEM and EOSPRINT software version, parameter set and operation in compliance with parameter sheet and operating instructions. Part properties are measured with specified measurement methods using defined test geometries and procedures. Further details of the test procedures used by EOS are available on request. Any deviation from these standard settings may affect the measured properties. The data correspond

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