

EOS Aluminium AlSi10Mg
High Productive Process

EOS Aluminium AlSi10Mg HiPro Process Builds Parts Fast

The HiPro process parameters offer the highest productivity of aluminum parts on the EOS M 400-4.



Main Characteristics

- Similar mechanical properties as casting parts
- Up to 261 cm³/h build rate
- Very cost efficient
- Variable options in development

Typical Applications

AlSi10Mg is a very widely used casting alloy. This process parameter is developed specifically for fast production and similar quality as conventional produced casting parts.

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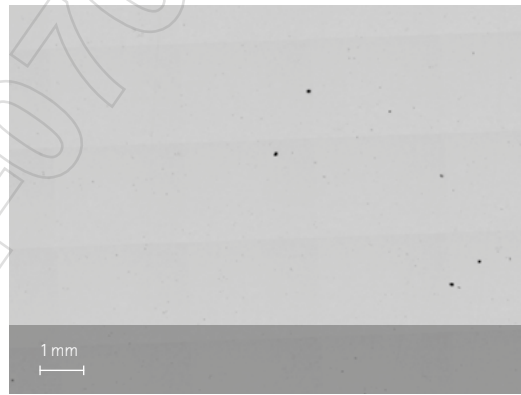
Key parameters

Current TRL	5
Target TRL	open
System	EOS M 400-4
Material	EOS Aluminium AlSi10Mg
Process	HiPro with 80µm layer thickness

Layer thickness 80 µm

Volume rate 18.1 mm³/s

Porosity 0.3%



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Typical part properties

Mechanical properties as manufactured	R _m ~ 370 MPa	R _{p0.2} ~ 230 MPa	A ₂₅ ~ 2.5 %
Mechanical properties heat treated	R _m ~ 310 MPa	R _{p0.2} ~ 220 MPa	A ₂₅ ~ 6 %
Surface roughness vertical	R _a = 15 µm		

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