

Aluminium Alloy AlSi12

for ProX™ 200 and 300 Direct Metal Printers

Metal powder for additive manufacturing of light weight parts with good thermal properties

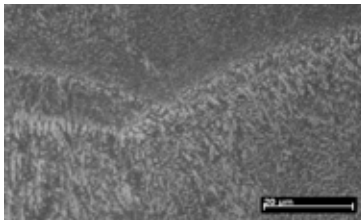
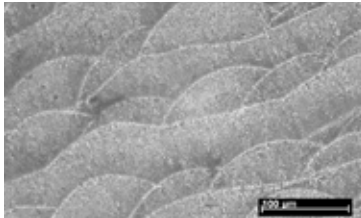


Technical Data

Chemical Composition

Alluminium alloy.

Element	% of weight
Al	Balance
Si	11.0 - 13.0
Residuals	< 0.6



Very fine microstructure of AlSi12 part after stress release

Mechanical Properties¹

	Condition	As-built ²	After post heat treatment ³
Ultimate Tensile Strength, MPa	ASTM E8	480 ± 20	240 ± 20
Yield Strength, MPa	ASTM E8	270 ± 20	180 ± 20
Elongation at break, %	ASTM E8	5.5 ± 1.0	20 ± 4.0
Hardness		137 ± 1.5 HB	90 - 95 HB
Density		approx. 100%	

¹ Parts built on a ProX 200 Direct Metal Production Printer

² As-built refers to the state of components built on the ProX 200 Direct Metal Printer before any post processing except removal from the build platform

³ Different post heat treatments might be applied for this type of alloy

Applications

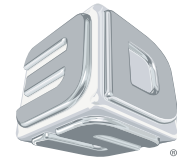
Industrial grade prototypes, production parts or spare parts for:

- Automotive
- Aerospace
- Aviation

Thin walled parts such as heat exchangers

Features

- High strength to weight ratio
- Good thermal properties



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