# **Aluminium Alloy AlSi12**

## for ProX™ 200 and 300 Direct Metal Printers

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

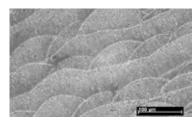


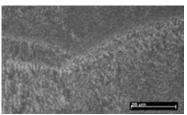
## **Technical Data**

#### **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 Properties<sup>1</sup>

	Condition	As-built <sup>2</sup>	After post heat treatment <sup>3</sup>
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%	

- <sup>1</sup> Parts built on a ProX 200 Direct Metal Production Printer
- <sup>2</sup> 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
- <sup>3</sup> 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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