DIGITAL METAL®

DM 247

DM 247 is a nickel based superalloy qualified for metal AM in Digital Metal's binder jetting system.

MAR-M 247™ derivative superalloys are suited for high temperature applications, used in both aerospace and gas turbine engines, combustion/exhaust applications, turbopump impellers and similar applications, where high temperatures and stresses are present.

The material has an innate resistance to oxidation and exhibits excellent high temperature strength and creep resistance when processed properly.

Details, surfaces and properties are excellent in as sintered condition. Further improvement is possible through post processing.

COMPOSITION – TYPICAL VALUES

Al	B	C	Co	Cr	Hf	Mo	Ni	Ta	Ti	W	Zr
5,4	0,012	0,13	9,9	8,3	1,3	0,66	Bal	3,0	1,0	9,8	0,05

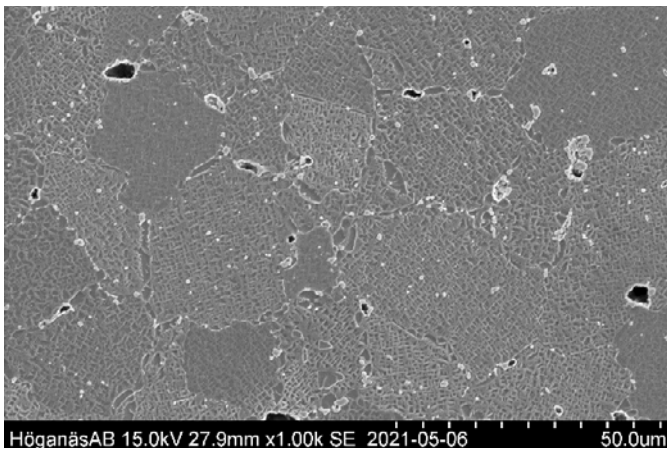
Related compositions: MAR-M 247™, René 108, CM247LC

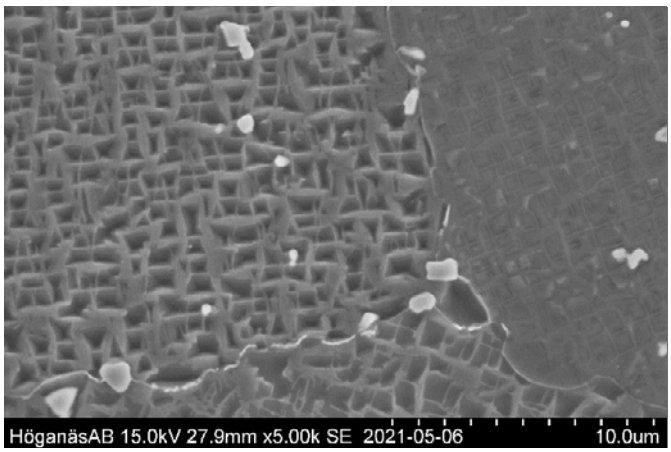
PHYSICAL PROPERTIES – TYPICAL VALUES

Composition (% weight)	As sintered
Ultimate tensile strength (MPa)	1250
Yield strength (MPa)	750
Elongation (%)	20
Hardness (HRC)	35
Relative density (%)	98

FEATURES

- Excellent high temperature performance: Very high tensile and creep rupture strength
- Great corrosion resistance
- Full density through Hot Isostatic Pressing, HIP
- Possible to heat treat to refine microstructure and improve strength further





As Sintered microstructure

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