



## forAM<sup>®</sup> HX 15-45 VG

### Advanced nickel superalloy for Additive Manufacturing

**forAM HX VG** is a vacuum induction melted, argon gas atomized, and spherical powder for additive manufacturing. The alloy is a Nickel-Chromium-Iron-Molybdenum based superalloy. Its exceptional corrosion resistance up to 1,200 °C, high strength over a wide temperature range, and the excellent fabricability make the forAM HX VG first choice for the chemical processing field, aerospace, and gas turbine engines.

Typical applications are, gas turbine engine components, aircraft parts, industrial furnace systems, nuclear engineering, chemical process applications, petrochemical process equipment.

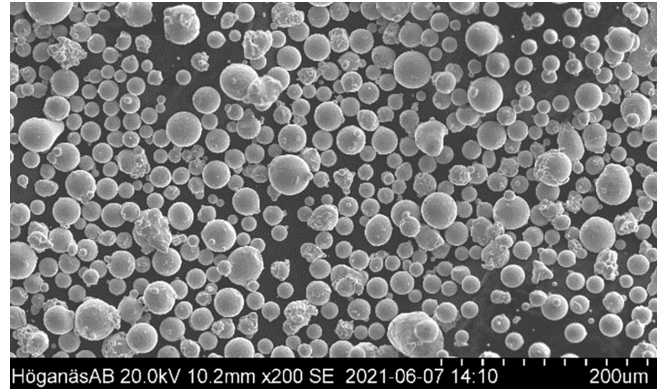
#### Equivalent materials:

- » 2.4665
- » UNS N06002
- » ASTM B435

**For more information on forAM product line and other of Höganäs products, please contact your local sales representative.**

## Powder properties

Chemical composition, (typical values)	
Element	Content, %
Cr	22
Fe	18
Mo	9
Co	1.5
W	0.7
C	0.07
Ni	Balance



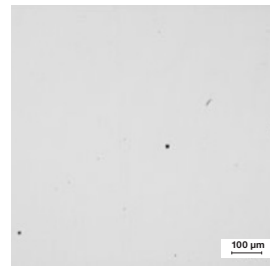
Typical powder properties		
Nominal particle range	15-45 μm (max 5% over and under size)	MPIF05, ASTM B214, ISO4497
Hall flow	16 s/50 g	MPIF03, ASTM B213, ISO4490
Apparent density	4.1 g/cm <sup>3</sup>	MPIF04, ASTM B212, ISO3923/1

## Mechanical properties

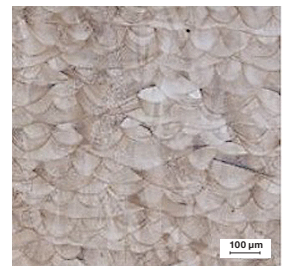
Surface condition is machined	
Heat treatment	As printed <sup>(1)</sup>
Printed in Z-direction – Build direction	
UTS (MPa)	695
YS (MPa)	530
Elongation (%)	40

Heat treatment	As printed <sup>(1)</sup>
Printed in X/Y-direction – Perpendicular	
UTS (MPa)	840
YS (MPa)	650
Elongation (%)	28

(1) No heat treatment



As polished



As Printed – Build direction

## Standard packaging:

30 kg (6x5 kg, 2.5 L PE bottles packed in cardboard box)

200 kg / 500 kg Flexbag

(Other tailored particle sizes and packaging are available under conditions)