



## forAM<sup>®</sup> CoCrMo 15-45 VG

Advanced cobalt-based superalloy for Additive Manufacturing

**forAM CoCrMo VG** is a vacuum induction melted, gas atomized, and spherical powder for additive manufacturing. The alloy is a cobalt-chromium-molybdenum-based superalloy with excellent mechanical properties, wear and corrosion resistance, biocompatibility and a very high specific strength.

Typical applications of forAM CoCrMo are orthopaedic implants, dental implants and gas turbine components.

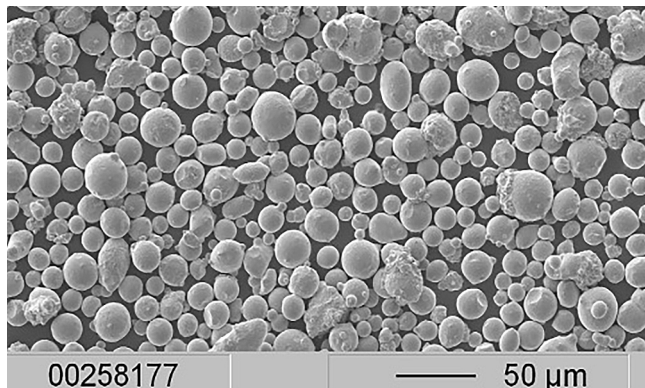
### Equivalent materials:

- » ASTM F75
- » UNS R30075
- » ISO 5832-4
- » 2.4979
- » CoCr28Mo6

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

## Powder properties

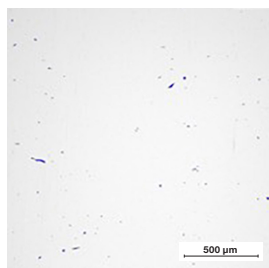
Chemical composition, (typical values)	
Element	Content, %
Cr	28
Mo	5.7
C	<0.01
Ni	<0.04
Co	Balance



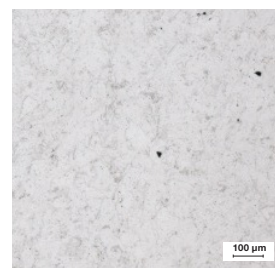
Typical powder properties		
Nominal particle range	15-45 µm (max 5% over and under size)	MPIF05, ASTM B214, ISO4497
Hall flow	16 s/50 g	MPIF03, ASTM B213, ISO4490
Apparent density	4.3 g/cm <sup>3</sup>	MPIF04, ASTM B212, ISO3923/1

## Mechanical properties

Surface condition is machined	
Heat treatment	SR <sup>(1)</sup>
Printed in Z-direction – Build direction	
UTS (MPa)	1,090
YS (MPa)	570
Elongation (%)	18
IE Notch in Y direction (J)	33



As polished



Stress Relieved <sup>(1)</sup>

Heat treatment	SR <sup>(1)</sup>
Printed in X/Y-direction – Perpendicular	
UTS (MPa)	1,190
YS (MPa)	600
Elongation (%)	23
IE Notch in Z direction (J)	37
Hardness (HRC)	37

(1) Stress relieved at 1,150 °C in Ar for 6h

## Standard packaging:

30 kg (6x5 kg, 2.5 L PE bottles packed in cardboard box  
(Other tailored particle sizes and packaging are available under conditions)