

### Introduction

PowderRange metal Additive Manufacturing powders from Carpenter Additive are developed with the needs of the busy AM facility in mind.

- ▶ Easy ordering
- ▶ Standard specifications
- ▶ 24-hour shipment
- ▶ Sold in easy-to-handle multiples of 10 kgs
- ▶ Easy repeat orders to optimize inventory management

This leaves you free to concentrate on the design and build of your AM parts, confident that PowderRange metal AM powders from Carpenter Additive will add reliability and consistency to your AM built parts.

### Chemical composition

Element		Minimum wt%	Maximum wt%
C	Carbon	0.32	0.45
Cr	Chromium	4.75	5.50
Cu	Copper		0.25
Fe	Iron	Balance	
Mn	Manganese	0.20	0.50
Mo	Molybdenum	1.10	1.75
Ni	Nickel		0.3
N	Nitrogen		0.10
O	Oxygen		0.10
P	Phosphorus		0.03
Si	Silicon	0.80	1.20
S	Sulfur		0.03
V	Vanadium	0.80	1.20

### Particle size distribution – CT PowderRange H13 F

Size	Value	Method
-15 µm	5 Volume %	Laser Size Diffraction
+45 µm	3 Weight %	Sieve Analysis
D10	18-24 µm	Laser Size Diffraction
D50	32.5-34.4 µm	Laser Size Diffraction

### Ordering information

PowderRange H13 F is available from stock and dispatched within 24 hours of receipt of order. Our PowderRange metal AM powders are sold in multiples of 10 kgs giving you the flexibility to order just the volume you need to maintain efficient material stock levels.

All our PowderRange materials are supplied with a full metal powder certification to Carpenter Additive's standard material specification, reporting size distribution, flow, chemistry and morphology.

Code	Description	Unit volumes
CT PowderRange H13 F	Flexible material developed to be suitable for a wide range of powder bed fusion machines and applications	10 kgs

### Further information

Depending on the machine, part geometry and build parameters, microcracking can occur with H13. For further information and advice on selection of materials for specific metal AM applications, contact Carpenter Additive.

To make an enquiry, please contact [powderrange@carpenteradditive.com](mailto:powderrange@carpenteradditive.com). Alternatively, for EU/Row, call +44 (0)1928 240 530 and for USA call +1-412-788-2856. You can visit us at [www.carpenteradditive.com](http://www.carpenteradditive.com).