

POWDERS FOR POWDER METALLURGY,
THERMAL SPRAYING,
PLASMA TRANSFERRED ARC SURFACING

Number PD-5065
Issue 6-14.03.2018

Co-HFA NF 12 Alloy-No 0004.12 GAS ATOMIZED

HS Number 81051010

Cobalt Hardfacing Alloy NF 12 is a high wear-resistant Co-Cr-W-C hardfacing alloy with excellent properties to deal with abrasion, erosion, cavitation and metal-to-metal wear, even at high temperatures. This alloy is heat resistant up to 900 °C, corrosion resistant and non-magnetic.

AMPERSINT® for P/M, HIP/CIP, MIM	AMPERIT® for Thermal Spraying	AMPERWELD® for Plasma Transferred Arc Surfacing
< 300µm < 31µm	90/45µm 53/20µm 45/10µm	150/53µm

Chemical Characteristics

(Mass fraction in % [cg/g]; ppm [µg/g])

Cr	29.0 - 33.0 %	Si	1.0 - 1.5 %
W	8.0 - 10.0 %	Mo	< 1.0 %
Fe	< 3.0 %	Mn	< 0.5 %
Ni	1.5 - 3.0 %	Co	balance
C	1.4 - 1.7 %		

Physical Characteristics

(Grain Size Distribution and Tolerances above / below max. in %)

AMPERSINT®	AMPERIT®	AMPERWELD®
< 300µm >95% ¹⁾	90/45µm +90µm max. 7% ¹⁾	150/53µm +150µm max. 5% ¹⁾
< 31µm >85% ³⁾	- 45µm max. 13% ¹⁾	- 53µm max. 5% ¹⁾
	53/20µm +53µm max. 7% ¹⁾	
	- 20µm max. 13% ²⁾	
	45/10µm +45µm max. 7% ¹⁾	
	- 10µm max. 13% ²⁾	

Other grades on request.

Particle shape approximately spherical

1) ROTAP Screening per ASTM B 214, 2) MICROTRAC by Laser Light Diffraction per ASTM C 1070.

Packaging

Standard Packaging:

AMPERSINT[®] and *AMPERWELD*[®]

100 kg in steel drums (30 l) with polyethylene inlet,
6 drums on one CP pallet, one packaging unit of 600 kg.
Other packaging on request.

AMPERIT[®]

5 kg in one 2.5 l PE bottle, 6 bottles (30 kg) in one cardboard box.

Storage and Handling

Storage and handling are subject to the rules and regulations
in the country of use.

Hazards identification in Advertising (REGULATION (EC) No 1272/2008 Article 48)

Carcinogenicity Category 1B

Carcinogenicity Category 2

Specific target organ toxicity – repeated exposure Category 2

Respiratory sensitisation Category 1

Skin sensitisation Category 1

Eye irritation Category 2

Reproductive toxicity Category 2

Acute aquatic toxicity Category 1

Acute toxicity Category 4

Chronic aquatic toxicity Category 1

Documentation

An inspection document in accordance with EN 10204 is supplied with every
shipment.

Remarks

Always mix well before using.

Other grain sizes on request.

Höganäs Germany GmbH

Im Schleeke 78-91
38642 Goslar/Germany

Säckinger Straße 51
79725 Laufenburg/Germany

Phone +49 5321 751-53753

<https://www.hoganas.com/en/contact/>

The conditions of your use and application of our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis at least must include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Höganäs Germany GmbH. All information is given without warranty or guarantee. It is expressly understood and agreed that the customer assumes and hereby expressly releases Höganäs Germany GmbH from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance and information. Any statement or recommendation not contained herein is unauthorized and shall not bind Höganäs Germany GmbH. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent. In case of order please refer to issue number of the respective product data sheet. All deliveries are based on the latest issue of the product data sheet and the latest version of our General Conditions of Sale and Delivery