

POWDERS FOR THERMAL SPRAYING

Number  
Issue

PD-4067  
5-29.01.2019

## AMPERIT<sup>®</sup> 547

<b>Chemical Formula</b>	WC-Ni 88-12
<b>Chemical Name</b>	Tungsten Carbide - Nickel 88-12
<b>Description of Product</b>	Agglomerated, Sintered
<b>Particle Sizes Available</b>	<b>Product Designation</b>
	AMPERIT <sup>®</sup> 547.002 90/45 µm
	AMPERIT <sup>®</sup> 547.088 53/20 µm
	AMPERIT <sup>®</sup> 547.074 45/15 µm
	AMPERIT <sup>®</sup> 547.059 30/ 5 µm

### Chemical Characteristics

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

Ni	11 - 13	%
C	5.4 - 5.8	%
Fe	max. 0.2	%
W	balance	

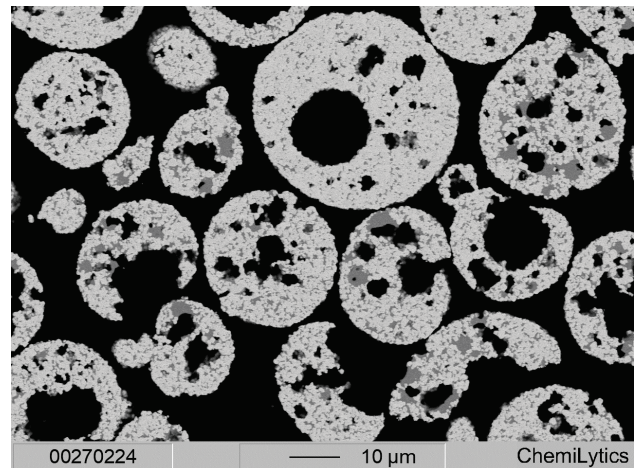
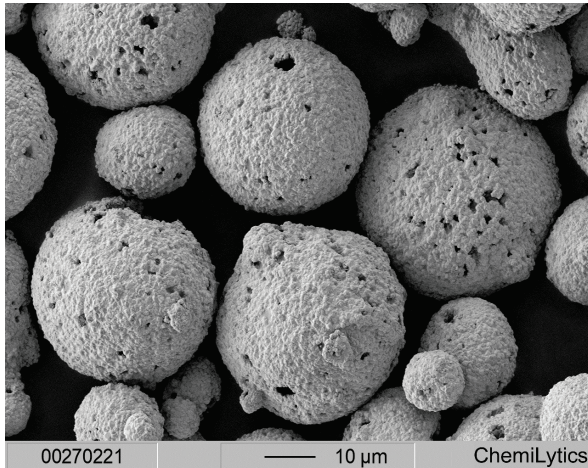
### Physical Characteristics

Particle Size Distribution <sup>2)</sup>	<b>547.002</b>		
+ 106 µm	max. 1	%	
+ 90 µm	max. 5	%	
- 45 µm	max. 10	%	
- 38 µm	max. 5	%	
Apparent Density <sup>3)</sup>	4.7 - 5.6	g/cm <sup>3</sup>	
Particle Size Distribution <sup>1)</sup>	<b>547.088</b>	<b>547.074</b>	<b>547.059</b>
- 125 µm	100	%	
- 88 µm		100	%
- 62 µm			100
- 44 µm			min. 99
D 90 %	60 - 70	µm	25 - 33
D 50 %	35 - 43	µm	15 - 21
D 10 %	21 - 25	µm	9 - 13
Apparent Density	4.7 - 5.6 <sup>3)</sup>	g/cm <sup>3</sup>	4.7 - 5.6 <sup>4)</sup> g/cm <sup>3</sup>

1) MICROTRAC by Laser Light Diffraction per ASTM C 1070, 2) ROTAP Screening per ASTM B 214,  
3) HALL FLOWMETER FUNNEL per ASTM B 212, 4) CARNEY FUNNEL per ASTM B 417.

Number PD-4067  
Issue 5-29.01.2019

SEM pictures<sup>5)</sup>



#### Packaging

Standard Packaging  
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 2  
Specific target organ toxicity - repeated exposure Category 1  
Skin sensitization Category 1

#### Documentation

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

#### Remarks

Always mix well before using.

**H.C. Starck Surface Technology and Ceramic Powders GmbH**  
A part of the Höganäs Group

Im Schleeke 78-91  
38642 Goslar/Germany

Säckinger Straße 51  
79725 Laufenburg/Germany

Phone +49 5321 751-53753

[stc@hoganäs.com](mailto:stc@hoganäs.com)

[www.hoganäs.com](http://www.hoganäs.com)

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 H.C. Starck Surface Technology and Ceramic Powders GmbH. All information is given without warranty or guarantee. It is expressly understood and agreed that the customer assumes and hereby expressly releases H.C. Starck Surface Technology and Ceramic Powders 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 H.C. Starck Surface Technology and Ceramic Powders 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.