

CAST TUNGSTEN CARBIDE

Chemical Formula WC/W₂C

Chemical Name Cast Tungsten Carbide

Description of Product Cast Tungsten Carbide (CTC) is a so-called cast and crushed tungsten carbide. It is of irregular particle shape. CTC is an eutectic mixture of mono tungsten carbide (WC) and di-tungsten carbide (W₂C). Average carbon content is generally between 3.8 and 4.2 wt.-%, which translates into 73 - 80 wt.-% W₂C and 20 - 27 wt.-% WC. CTC particles have a very fine internal structure ("feather structure"), resulting in very high hardness values.

Blends of CTC with alloy powders based on Ni, Fe or Co are used to produce superior wear protecting coatings by PTA welding, lasercladding or other wear protective welding applications. Examples are conveyor screws, fan blades, wear plates, excavator bucket teeth and crusher jaws. Furthermore, CTC can be used for the production of drill bits.

HS Number 28499030

Grain sizes available

Product Designation

Item 1:	- 3150	+ 800	µm
Item 2:	- 2380	+ 1180	µm
Item 3:	- 2000	+ 1000	µm
Item 4:	- 1600	+ 800	µm
Item 5:	- 1180	+ 710	µm
Item 6:	- 1000	+ 500	µm
Item 7:	- 800	+ 560	µm
Item 8:	- 710	+ 300	µm
Item 9:	- 500	+ 250	µm
Item 10:	- 450	+ 250	µm
Item 11:	- 450	+ 106	µm
Item 12:	- 425	+ 250	µm
Item 13:	- 400	+ 200	µm
Item 14:	- 250	+ 106	µm
Item 15:	- 200	+ 45	µm
Item 16:	- 180	+ 63	µm
Item 17:	- 180	+ 53	µm
Item 18:	- 160	+ 63	µm
Item 19:	- 150	+ 75	µm
Item 20:	- 150	+ 45	µm
Item 21:	- 150	+ 53	µm
Item 22:	- 125	+ 45	µm
Item 23:	- 106	+ 53	µm
Item 24:	- 106	+ 45	µm
Item 25:	- 106	+ 63	µm
Item 26:	- 90	+ 45	µm
Item 27:	- 75	+ 36	µm
Item 28:	- 45	+ 15	µm

Chemical Characteristics

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

C_{total} 3.8 - 4.2 %

Physical Characteristics

Particle size distribution¹⁾

Oversize	max.	2	%
Undersize	max.	5	%

Packaging

Packaging according to transport regulations.
50 kg in 18 l steel drum with a polyethylene bag.
Other packaging / quantity on request.

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)

None.

Documentation

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

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/>

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