

POWDERS

MACROCRYSTALLINE TUNGSTEN CARBIDE POWDERS

TECHNICAL DATA

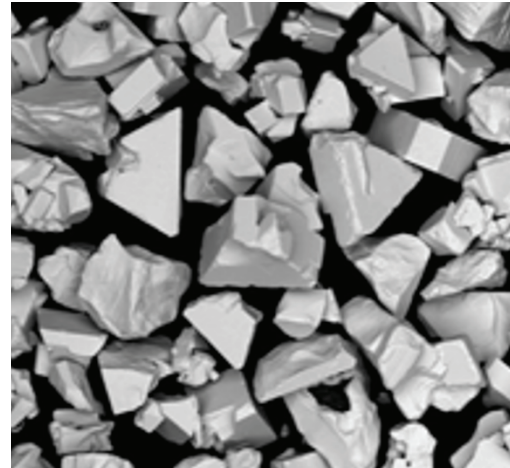
PRODUCT DESCRIPTION

Produced by a proprietary high-temperature aluminothermic reaction, Kennametal's Macrocrystalline Tungsten Carbide powders are the only true macrocrystalline (WCx) powders on the market.

Kennametal's WCx powders are one of the most thermodynamically stable forms of WC. The material features a highly uniform and pure monocarbide crystal with a uniform 6.13% carbon, yielding a stable carbide that has excellent wettability.

APPLICATIONS

PDC drill bits, mining and construction tools, coring bits, saw blades, wear parts, thermal spray powders, hardfacing (weld) rods, and infiltrated diamond tools.



Macrocrystalline Tungsten Carbide 100x SEM

TYPICAL PHYSICAL PROPERTIES

Product Name	Product Code (Material Master)	Mesh Size	Hardness (HV)	Total Carbon	Free Carbon	Apparent Density g/cm ³	Scott Density g/in ³
SCNC024	1584615	40 x 80	1400–1800	6.13% ±0.05	<0.05%	6.8–7.6	110–125
SCNC025	1584616	40 x 100				6.8–7.6	110–125
SCNC047	1584619	60 x 80				6.8–7.6	110–125
SCNC069	1307136	80 x 200				6.8–7.6	110–125
SCNC080	1593361	100 x 270				6.8–7.6	110–125
SCNC093	1586935	140 x 200				6.8–7.6	110–125
SCNC095	1584635	140 x 325				6.8–7.6	110–125
SCNC104	1584638	200 x 325				6.8–7.6	110–125
SCNC121	1584647	-325				6.2–7.4	100–120
SCNC122	1584648	400 x 20 µm				6.2–7.4	100–120
SCNC129	1584653	5-7 µm	1400–1800	6.13% ±0.05	<0.05%	5.5–6.5	90–110
SCNC130	1584654	3-5 µm				5.5–6.5	90–110

Kennametal's Macrocrystalline WC is available in wide variety of sizes and cuts, from -40 mesh (420 µm) to 1.5 µm. Customized sizes and solutions are available upon request.

PACKAGING

Product typically ships in 50-lb. (25-kg) metal drums.

Kennametal manufactures sophisticated materials, solid carbide, alloy castings, and machined parts that resist wear, corrosion, and abrasion. Information provided in this document is intended only for general guidance about Kennametal products and is the best information in our possession at the time. Product users may request information about their individual use of our products, but Kennametal does not warrant or guarantee this information in any way. Selection and purchase of Kennametal products is the sole responsibility of the product user based on the suitability of each use. Kennametal cannot know or anticipate the many variables that affect individual product use, and individual performance may vary. For these reasons, Kennametal does not warrant or guarantee advice or information in this document, assumes no liability regarding the same, and expressly disclaims any warranty of any kind, including any warranty of fitness for a particular purpose, regarding the same.

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