

POWDERS

CARBIDE MATRIX POWDERS FOR INFILTRATION

TECHNICAL DATA

PRODUCT DESCRIPTION

Kennametal is a leader in the development of matrix and alloy powders used primarily in manufacturing oil and gas drilling tools. Our matrix powders are engineered for high apparent and tap densities, resulting in superior strength properties for resistance to erosive/abrasive wear and impact.

Kennametal's matrix powders are all produced with Macrocrystalline Tungsten Carbide (WCx). WCx is one of the most thermodynamically stable forms of WC. It features a highly uniform and pure monocarbide crystal with a uniform 6.13% carbon, yielding a stable carbide.



TMS Matrix Powder

APPLICATIONS

Construction tools, coring bits, PDC drill bits for oil and gas, mining, and construction.

TYPICAL PHYSICAL PROPERTIES

Product Name	Product Code (Material Master)	Grade Name	Fill	TRS (KSI)*	Erosion Resistance (mm ³ /kg)*
TMS	6586958	DMTMS001	WCx, WCc, Ni Powder	164	10
HDK (P100)	1568290	DMHDK001 P100	WCx, WCc, Ni Powder	133	17
P90	1568752	DMP90001	WCx, WCc, Fe Powder	124	16

*TRS and erosion-resistance values represent sample infiltration with MF53 material. Kennametal also manufactures customized carbide matrix powders in a wide variety of sizes, compositions, and types 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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