

GP045

General Properties

GP045 tungsten carbide is an excellent material choice for long life and economy in nozzles for abrasive blasting applications. GP045 is ideal for blasting when rough handling cannot be avoided and mineral or coal slag abrasives are used, due to the needs for wear and impact resistance, or in harsh environments.

Applications

- Abrasive flow control
- Surface preparation
- Wet or dry blasting
- Descaling
- Slurry jet
- Spray drying
- Descaling

Physical Properties

Property	Units	GP045 (WC- 6% Co)
Density	g/cm ³	14.75
Transverse Rupture Strength (20° C)	Kpsi	275
Rockwell A Hardness		91
Fracture Toughness	MPa • m ^{1/2}	10
Abrasion Resistance		
Dry Wheel (ASTM G-65A)	1/cm ³	288
Wet Wheel (ASTM B-611)	1/cm ³	48
Erosion Resistance (ASTM G76*)		
90° *w/SiC Abrasive	x 10 ⁻⁶ cm ³ /g	140
30° *w/SiC Abrasive	x 10 ⁻⁶ cm ³ /g	70
Thermal Expansion, RT - 400 °C	x 10 ⁻⁶ °C ⁻¹	5.2
Thermal Conductivity @ RT	W/m • °K	88

NOTE: This data shows typical values and does not represent a specification.

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