

Product specification				
Type of product		Boron carbide powder 95 (Refractory)		
Size distribution		-325# (ASTM)		
Chemistry				
Property	Min (%w.t.)	Typical (%w.t.)	Max (%w.t.)	Analysys Method / Notes
Boron Carbide (B <sub>4</sub> C)	95 ±0.65	-	-	Definition %B <sub>4</sub> C = (%B tot - B free) + (%C tot - %C free)
Tot B + Tot C	97.5 ±0.45	-	-	Deducted from the measurement of the Total Boron and Total Carbon
Total Boron (B tot)	75 ±0.4	-	-	Alkali fusion - titration Following JB/T 7993-2012 standard
Nitric Acid Soluble Boron (B free)	-	-	0.5 ±0.05	Nitric Acid extraction - titration This method measures %B free = (%B <sub>2</sub> O <sub>3</sub> + %B elemental) Following: ASTM C791 standard
Boron Oxide (B <sub>2</sub> O <sub>3</sub> )	-	-	0.5 ±0.05	Hydrochloric acid extraction – titration This method measures only %B <sub>2</sub> O <sub>3</sub> Following: ASTM C791 standard
Total Carbon (C tot)	-	-	22.5 ±0.05	Inductive combustion – Infrared absorption of CO <sub>2</sub> Following: ASTM C791 standard
Free Carbon (C free)	-	-	2.0 ±0.15	Wet chemical oxidation – titration Following: JB/T 7993-2012 standard
Iron Impurities (Fe)	-	-	0.5 ±0.03	Alkali fusion – titration Following: JB/T 7993-2012 standard
Particle Size Distribution				
Test Sieving Method	+325# ASTM	-325# ASTM	Notes: Wet sieving	
	max. %10	min. %90		
Packaging				
25kg paper bags or as per customers special requirements (steel or plastic drums etc...)			Shipped on 500kg pallettes.	

**Retek Ltd.**

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