

Section 1: Product Profile & Application

Engineered for maximum wear resistance in highly abrasive, continuous-grinding environments. Manufactured using advanced induction melting and permanent metal mold casting. Combined with a multi-stage quenching and tempering heat treatment, this produces a highly refined microstructure packed with primary carbides. The result is an exceptionally hard, wear-resistant ball designed to maintain its spherical shape longer than standard media.

- **Primary Applications:** Cement Mills (Fine Grinding Chambers), Coal Mills, and highly abrasive mineral processing.
- **Manufacturing Process:** Induction Melting, Permanent Mold Casting, Quenching, and Tempering.

Section 2: Technical Specifications

- **Dimensional & Mass Specifications**

Diameter (mm)	Diameter (in)	Minimum Mass (g)	Maximum Mass (g)
10	0.40	4.11	7.00
20	0.78	32.90	44.00
30	1.18	111.00	148
40	1.50	236	304
50	2.00	511	620
60	2.36	888	1000
70	2.75	1410	1590
80	3.00	2091	2509
90	3.50	2996	3414

Note: Mass tolerances are strictly controlled to a 0 to +5% overweight variance to ensure highly predictable mill charge kinetics.

- **Chemical Composition (% Weight)**

Dia (mm)	C	Mn	Cr	Si	P & S
10	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
20	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
30	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
40	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
50	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
60	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
70	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
80	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10
90	2.25 - 3.50	0.50 - 1.50	10.00 - 20.00	0.50 - 1.25	0.00 - 0.10

Note: Chemical compositions listed reflect standard parameters. Custom alloy profiles can be engineered upon request to optimize wear rates for specific mill conditions and ore hardness.

- **Mechanical Properties & Performance**

Property	Testing Standard	Metric / Performance
Surface Hardness	Rockwell (HRC)	60 - 65
Volumetric Hardness	Rockwell (HRC)	58 - 62
Impact Toughness	Charpy V-Notch	≥ 4.0 J/cm²
Breakage Rate	10-Meter Drop Test	≤ 1.0%
Microstructure	Metallurgical Phase	Martensite / Primary Carbides

Chrome Casting Grinding Media

Engineered to Endure



Section 3: Manufacturing

Our high-chrome cast grinding media is manufactured using semi-automated induction melting furnaces and precision permanent mold casting line. Premium steel scrap and high-purity ferroalloys are smelted at exact temperatures and poured into advanced metallic molds. This highly controlled solidification process refines the internal grain structure and densely packs the matrix with wear-resistant primary carbides. Multi-stage quenching and tempering heat treatment, this process guarantees an optimal balance of extreme volumetric hardness and abrasion resistance, preventing the rapid wear and loss of spherical shape seen in standard grinding media.



Section 4: Packaging & Delivery Configurations



Industrial Steel Drums

- **Capacity:** 850kg to 1,000kg
- **Design:** Heavy-gauge, weather-sealed steel drums securely strapped to heavy-duty wooden or steel pallets.
- **Advantage:** The ultimate protection for long-term outdoor storage in extreme weather environments and seamless ocean-to-site freight.



Heavy-Duty Polypropylene Bags

- **Capacity:** 1,000kg (1 Metric Ton)
- **Design:** UV-resistant, moisture-lined bulk bags engineered with reinforced 4-point lifting straps.
- **Advantage:** Highly efficient for rapid offloading, mill-side staging, and direct-to-hopper loading.



Ready to Optimize your Milling Operations

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