

Alumina Grinding Media for Cement Mill



With the advantages of high density , low cost , excellent abrasion properties . Chemshun **alumina ceramic** grinding ball becomes an ideal media instead of traditional high chromium steel balls for cement mill

Six Advantages of Alumina Grinding Media Instead of High Chromium Steel Ball For Cement Mill Application

1) Save Power

-- Reducing the mill loading 20%

-- Saving power above 15% per ton cement

2) Improve quality

-- improve the grinding efficiency

-- Improve the performance of cement

-- Rationalize the grains distribution more better

-- Increase 2% of the grain 3-32 μm

-- Improve the spheroidization efficiency

-- Decrease 1~2% water in same standard consistency

-- Adapt the concrete admixture for cement well

3) Reduce Current

-- The current of mill mainframe is reduced by more than 20%

4) Cooling and noise reduction

-- The temperature could be down more about 20°C

-- Good effect of noise reduction

5) Excellent abrasion

-- The abrasion loss of chemshun alumina grinding media for cement mill is about a half of steel ball

6) Protect environment

-- Using of chemshun alumina grinding ball could protect environment effectively

Physical properties comparison with chromium steel balls



Materials	Density	Bulk weight	Moh's Hardness	Crushing Rate	Abrasion Loss
	g/cm ³	Kg/cm ³	Grade	%	g/ Kg.h
High chromium steel ball	7.6-7.8	4500	6.8	<1-3	0.18
Chemshun alumina Ball	3.6-3.8	2200-2300	9.0	<1-3	0.09

Properties of Alumina ceramic cement mill ball :

Properties	Unit	CHEMESHUN 92	CHEMESHUN 95
Al ₂ O ₃	%	>92	>95
SiO ₂	%	<5	<4
CaO+MgO	%	<2	<2
Density	g/cm ³	>3.60	>3.70
Bulk weight	kg/cm ³	2200	2300
Moh's hardness	Grade	9	9
Rockwell hardness	HRA	83-85	85-87
Water absorption	%	0	0

Molding by cold isostatic pressing :

Diameter (mm)	Φ80	Φ70	Φ60	Φ50	Φ40	Φ30	Φ25
Range	80±3	70±3	63±2	52±2	40±2	32±1.5	26±1.5

Molding by rolling :

Diameter (mm)	Φ20	Φ17	Φ15	Φ13
Range	20 ± 1	17±1	15±1	13±1

