

TECHNICAL DATA SHEET

ZIRCONIA FUSED ALUMINA

Zirconia Fused alumina was made from aluminum and Zirconium oxide by melting above 2250C in the electric arc furnace and cooling, then the huge zirconia fused alumina lump is crushed into different sizes.

TYPICAL CHEMICAL ANALISIS [%]

Items	Al2O3	ZrO2	TiO2	Fe2O3	SiO2
ZA25	68-72	24-30	≤1.5	≤0.5	≤1.0
ZA40	55-57	35-44	≤1.5	≤0.5	≤1.0

PHYSICAL PROPERTIES

Crystal Form	Monoclinic,tetragonal system
Reaction with acid and alkali	no
Reaction with carbon	Forming carbide since 1650C
Color	Grey
True Density	4.20g/cm3
Bulk Density	2.18g/cm3
Moh's hardness	9.0
Knoop hardness	1450-2000kg/cm2
Melting point	1900C
Maximum service temperature	1700C
Specific heat capacity(cal/g.C)	0.2205(50-500C)
Heat conductivity	0.2718 cal/cm2.sec.C
Linear expansivity(X10-6)	6.82(100-700C)

PARTICLE SIZE DISTRIBUTION

F4	+8000um	0	+5600um	≤20%	+4750um	≥40%	+4750+4000um	≥70%	-3350um	≤3%
F5	+6700um	0	+4750um	≤20%	+4000um	≥40%	+4000+3350um	≥70%	-2800um	≤3%
F6	+5600um	0	+4000um	≤20%	+3350um	≥40%	+3350+2800um	≥70%	-2360um	≤3%
F7	+4750um	0	+3350um	≤20%	+2800um	≥40%	+2800+2360um	≥70%	-2000um	≤3%
F8	+4000um	0	+2800um	≤20%	+2360um	≥45%	+2360+2000um	≥70%	-1700um	≤3%
F10	+3350um	0	+2360um	≤20%	+2000um	≥45%	+2000+1700um	≥70%	-1400um	≤3%
F12	+2800um	0	+2000um	≤20%	+1700um	≥45%	+1700+1400um	≥70%	-1180um	≤3%
F14	+2360um	0	+1700um	≤20%	+1400um	≥45%	+1400+1180um	≥70%	-1000um	≤3%
F16	+2000um	0	+1400um	≤20%	+1180um	≥45%	+1180+1000um	≥70%	-850um	≤3%
F20	+1700um	0	+1180um	≤20%	+1000um	≥45%	+1000+850um	≥70%	-710um	≤3%
F22	+1400um	0	+1000um	≤20%	+850um	≥45%	+850+710um	≥70%	-600um	≤3%



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F24	+1180um	0	+850um	≤25%	+710um	≥45%	+710+600um	≥65%	-500um	≤3%
F30	+1000um	0	+710um	≤25%	+600um	≥45%	+600+500um	≥65%	-425um	≤3%
F36	+850um	0	+600um	≤25%	+500um	≥45%	+500+425um	≥65%	-355um	≤3%
F46	+600um	0	+425um	≤30%	+355um	≥40%	355+300um	≥65%	-250um	≤3%
F54	+500um	0	+355um	≤30%	+300um	≥40%	+300+250um	≥65%	-212um	≤3%
F60	+425um	0	+300um	≤30%	+250um	≥40%	250+212um	≥65%	-180um	≤3%
F70	+355um	0	+250um	≤25%	+212um	≥40%	+212+180um	≥65%	-150um	≤3%
F80	+300um	0	+212um	≤25%	+180um	≥40%	+180+150um	≥65%	-125um	≤3%
F90	+250um	0	+180um	≤20%	+150um	≥40%	+150+125um	≥65%	-106um	≤3%
F100	+212um	0	+150um	≤20%	+125um	≥40%	+125+106um	≥65%	-75um	≤3%
F120	+180um	0	+125um	≤20%	≥40%	≥40%	+106+90um	≥65%	-63um	≤3%
F150	+150um	0	+106um	≤15%	+75um	≥40%	+75+63um	≥65%	-45um	≤3%
F180	+125um	0	+90um	≤15%	+75um	*	+75+63um	≥40%	-53um	*
F220	+106um	0	+75um	≤15%	+63um	*	+63+53um	≥40%	-45um	*

MAIN APPLICATIONS:

1. Making zircon fused alumina brick and building materials
2. Used for making bonded abrasives products, and process of grinding, sandblasting, surface treatment of metal products and other materials.
3. With good melt erosion resistance, Zirconia fused alumina has good grinding effect on steel, iron casting, heat resistant steel and other alloy materials.
4. Zirconia fused alumina can be made for heavy duty Zirconia fused alumina grinding wheel, snagging, cutting disc, Fiber disc, grinding rails, high speed abrasive belts etc
5. Used for making coated abrasives products,
6. Used for making lapping paste, polishing wax, emery cloth, sandpaper etc
7. ZA is primarily used for steel conditioning wheels, snagging wheels, large diameter cut-offs and other grinding applications that require high speed and pressure. It's also recommended for refractories that require a high resistance to environmental corrosion and a low coefficient of thermal expansion. Applications include slide gates, glass tank refractories, and other applications requiring resistance to molten slags.

