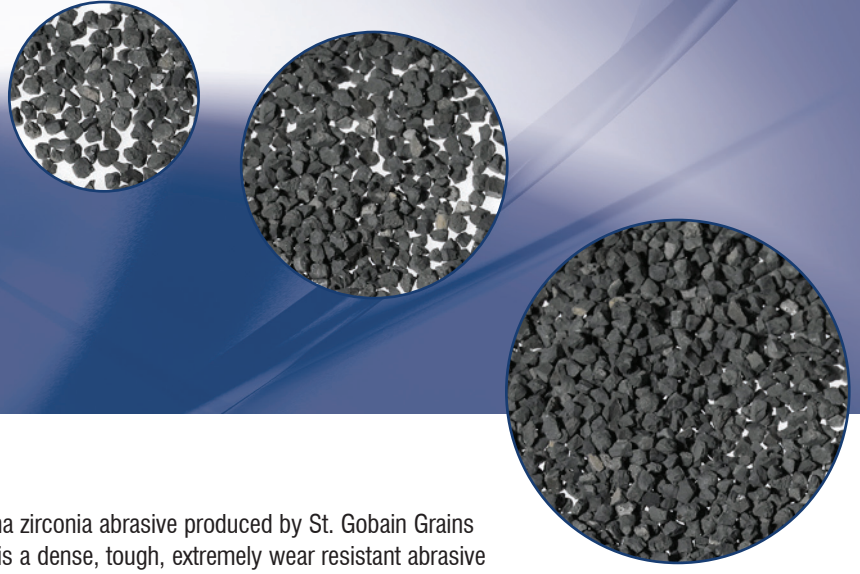

ZF® ALUNDUM®

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DESCRIPTION

ZF® ALUNDUM® is a cast, fused alumina zirconia abrasive produced by St. Gobain Grains & Powders in a proprietary process. It is a dense, tough, extremely wear resistant abrasive with exceedingly fine crystal size. It is crushed to produce a blocky shape with sharp edges.

APPLICATIONS

ZF® ALUNDUM® is used in resin bonded, foundry-type grinding wheels, where it has demonstrated remarkable life and stock removal properties.

TYPICAL CHEMICAL ANALYSIS

Al_2O_3	75.00%
ZrO_2	23.00%
TiO_2	0.10%
SiO_2	0.30%
Fe_2O_3	0.30%
Na_2O	0.08%
CaO	0.10%
MgO	0.03%
S	0.06%

GRAIN SIZES AVAILABLE

4, 6, 8, 10, 12, 14, 16, 20, 24, 30, and 36

Specialty sizes available upon request

TYPICAL PHYSICAL PROPERTIES

Color	Gray
True Density	4.30 gms/cc
Knoop100 Hardness	1450
Melting Point	1950º C
Crystal Size	17 microns
Loose Pack Density	1.985 – 2.275 g/cc
Grading	modified ANSI

TYPICAL LOOSE PACK DENSITY

Grit	g/cc	Grit	g/cc	Grit	g/cc	Grit	g/cc
8	2.105 – 2.275	**12**	2.160 – 2.340	**16**	2.050 – 2.260	**24**	1.990 – 2.220
10	2.200 – 2.380	**14**	2.100 – 2.280	**20**	2.005 – 2.235	**30**	1.985 – 2.215

updated 5-15

WASHINGTON MILLS

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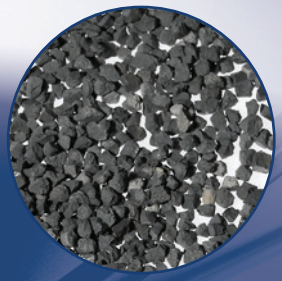
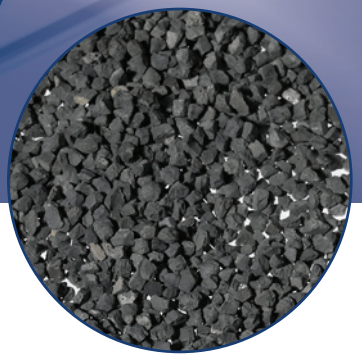

ZF® ALUNDUM® (PG. 2)

SIEVE ANALYSES

ZF® ALUNDUM® abrasive is produced according to procedure described in ANSI B.74.12-2001 i.e. 100 gram sample sieved for five minutes on a Rotap using U.S. Standard brass sieves with St. Gobain Modified Ansi limits as follows:

U.S. STANDARD SIEVES/LIMITS

Size	Oversize	Coarse Grit	1st Nominal	2nd Nominal	Pan
4	+5/16" / 0	+3 1/2 / 0 – 20	+4 / 40+	+4+5 / 70+	-6 / 0 – 5
6	+3-12 / 0	+5 / 15 – 30	+6 / 35+	+6+7 / 55+	-8 / 0 – 3
8	+4 / 0	+6 / 8 – 23	+7 / 30+	+7+8 / 65+	-10 / 0 – 3
10	+5 / 0	+7 / 2 – 17	+8 / 20+	+8+10 / 60+	-12 / 0 – 8
12	+6 / 0	+8 / 1 – 16	+10 / 20+	+10+12 / 60+	-14 / 0 – 5
14	+8 / 0	+12 / 20 – 40	+14 / 35+	+14+16 / 60+	-18 / 0 – 5
16	+10 / 0	+14 / 5 – 25	+16 / 30+	+16+18 / 60+	-20 / 0 – 5
20	+12 / 0	+16 / 0 – 20	+18 / 25+	+18+20 / 60+	-25 / 0 – 10
24	+16 / 0	+20 / 0 – 25	+25 / 45+	+25+30 / 65+	-35 / 0 – 3
30	+18 / 0	+25 / 0 – 25	+30 / 45+	+30+35 / 65+	-40 / 0 – 3
36	+20 / 0	+30 / 0 – 25	+35 / 45+	+35+45 / 65+	-45 / 0 – 3