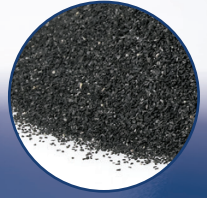

DURALUM® ATZ II W

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DESCRIPTION

DURALUM® ATZ II W abrasive is a new cast, dense, fused alumina – zirconia abrasive developed for grinding wheel manufacturers where extended life and improved cutting ability are required. It is produced by fusing zirconia and alumina above 2000º C and chill casting it in a proprietary process.

DURALUM® ATZ II W is a unique abrasive. It cuts more aggressively, lasts up to 6 times longer, and exhibits more uniform wear than conventional abrasives.

APPLICATIONS

DURALUM® ATZ II W is recommended for use in resin-bonded portable, depressed center, and cut-off wheels. DURALUM® ATZ II W wheels are extremely durable, yet grind with exceptional coolness due to the unusual micro-chipping action of DURALUM® ATZ II W's crystals as they wear.

TYPICAL CHEMICAL ANALYSIS

Al_2O_3	54 – 60%
ZrO_2	39 – 41%
TiO_2	1.00 to 2.00%
Y_2O_3	max 0.80

GRAIN SIZES AVAILABLE

8, 10, 12, 14, 16, 20, 24, 30, 36, 46, 54, 60, 70, 80, 100, 120, 150, 180, and 220

TYPICAL PHYSICAL PROPERTIES

Crystal Size	10 – 12 microns
Color	Dark Gray
Specific Gravity	4.5
Vickers Hardness	19 GPA for 50 gram load
pH Value	7
Melting Point	1900º C
Grading	Washington Mills Standard
Bulk Density	ANSI B74.4 – 1992 (R2007)

** Other sizes available upon request.*

updated 5-15

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DURALUM® ATZ II W (pg. 2)

TYPICAL BULK DENSITY

Grit	g/cc	Grit	g/cc	Grit	g/cc
6	2.25 – 2.35	**24**	2.08 – 2.21	**90**	1.81 – 1.91
8	2.22 – 2.33	**30**	2.04 – 2.15	**100**	1.80 – 1.90
10	2.21 – 2.32	**36**	1.98 – 2.09	**120**	1.80 – 1.90
12	2.18 – 2.31	**46**	1.93 – 2.03	**150**	1.80 – 1.90
14	2.16 – 2.28	**54**	1.87 – 1.97	**180**	1.75 – 1.85
16	2.12 – 2.24	**60**	1.85 – 1.95	**220**	1.75 – 1.85
20	2.10 – 2.22	**80**	1.83 – 1.93		

SIEVE ANALYSES

ATZ II W 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 Washington Mills' limits as follows:

Size	Oversize	Coarse Grain	First Nominal	Second Nominal	Pan
12	+7 0	+10 0 – 20	+12 45+	+12+14 70+	-16 0 – 3
14	+8 0	+12 10 – 35	+14 30 – 60	+14+16 55+	-18 0 – 3
16	+10 0	+14 1 – 20	+16 25 – 55	+16+18 55+	-20 0 – 6
20	+12 0	+16 0 – 20	+18 20 – 50	+18+20 60+	-25 0 – 10
24	+16 0	+20 15 – 40	+25 35 – 65	+25+30 55+	-35 0 – 3
30	+18 0	+25 10 – 35	+30 40+	+30+35 55+	-40 0 – 3
36	+20 0	+30 0 – 25	+35 45+	+35+40 65+	-45 0 – 3