

# DURALUM® SPECIAL WHITE



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## DESCRIPTION

DURALUM® SPECIAL WHITE is a pure, clear white aluminum oxide. DURALUM® SPECIAL WHITE makes the whitest vitrified wheels possible, with low soda and silica content. DURALUM® SPECIAL WHITE is the most friable aluminum oxide. Due to its high purity and large crystal size, DURALUM® SPECIAL WHITE crystals fracture comparatively swiftly, constantly exposing fresh cutting crystals to the work piece.

## APPLICATIONS

DURALUM® SPECIAL WHITE is used in the grinding of heat sensitive alloys, taking advantage of its friability and cool cutting ability. Widely used in precision grinding of high speed steels, segments and internal grinding wheels.

## TYPICAL CHEMICAL ANALYSIS

Al <sub>2</sub> O <sub>3</sub> (by difference)	99.76%
SiO <sub>2</sub>	0.02%
Fe <sub>2</sub> O <sub>3</sub>	0.02%
Na <sub>2</sub> O	0.20%

## GRAIN SIZES AVAILABLE

12, 14, 16, 20, 24, 30, 36, 46, 54, 60, 70, 80, 90, 100, 120, 150, 180, and 220

## POWDER SIZES AVAILABLE

240, 280, 320, 400, 500, 600, 800, 1000, 1200, F, FF, FFF

*Specialty sizes available upon request*

## TYPICAL PHYSICAL PROPERTIES

Crystallography	Alpha alumina, in the hexagonal crystal system
Color	White
Specific Gravity	3.96
Knoop <sub>100</sub> Hardness	2150
Shape	Blocky, with sharp edges
Average crystal size	2,500 microns, no matrix
Porosity: Total Volume	5.5 %
Grading (Grain)	ANSI B74.12-2001, Table 2 OR FEPA 42-1:2006
Grading (Powder)	ANSI B74.10-2001 OR FEPA 42-2:2006
Bulk Density	ANSI B74.4-1992 (R2007)
Magnetics	ANSI B74.19-2002 (R2007)

## TYPICAL BULK DENSITY

Grit	g/cc	Grit	g/cc	Grit	g/cc	Grit	g/cc
12	1.74 – 1.84	30	1.75 – 1.85	70	1.68 – 1.78	150	1.59 – 1.69
14	1.76 – 1.86	36	1.74 – 1.84	80	1.68 – 1.78	180	1.56 – 1.66
16	1.78 – 1.88	46	1.74 – 1.84	90	1.63 – 1.73	220	1.53 – 1.63
20	1.77 – 1.87	54	1.71 – 1.81	100	1.62 – 1.72		
24	1.76 – 1.86	60	1.71 – 1.81	120	1.64 – 1.74		

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