

# BT — Brown Aluminum Oxide

## BROWN FUSED ALUMINA (AL<sub>2</sub>O<sub>3</sub>) FOR COATED ABRASIVES

### ABOUT:

BT is a brown aluminum oxide obtained by a reduction fusion of high quality bauxites in electric arc furnaces. Due to its high toughness, BT is recommended for high performance coated abrasives.

TYPICAL CHEMICAL ANALYSIS			
Al <sub>2</sub> O <sub>3</sub>	95.69%		
TiO <sub>2</sub>	2.66		
SiO <sub>2</sub>	0.83		
Fe <sub>2</sub> O <sub>3</sub>	0.28		
MgO	0.29		

TYPICAL PHYSICAL PROPERTIES		
Specific Gravity:	3.96 g/cc	
Knoop 100 Hardness:	1850 kg/cm <sup>2</sup>	
Toughness:	48% (ANSI-B74.8 R2007)	

TYPES OF TREATMENT			
TYPES OF TREATMENT SHAPE			
Treatment	Super Angular	 Angular	
Not Treated	BTLD L	BT L	
Red Coated (RC)*	BTLDRC L	BTRC L	
Silane Treated (ST)*	BTLDST L	BTST L	

BULK DENSITY (g/cc)					
Grit Size	LD L	L	Grit Size	LD L	L
12	1.80 - 1.90	1.88 - 1.98	60	1.62 - 1.72	1.70 - 1.80
16	1.80 - 1.90	1.88 - 1.98	80	1.59 - 1.69	1.67 - 1.77
20	1.76 - 1.86	1.84 - 1.94	100	1.57 - 1.67	1.65 - 1.75
24	1.76 - 1.86	1.84 - 1.94	120	1.54 - 1.64	1.62 - 1.72
30	1.72 - 1.82	1.80 - 1.90	150	1.50 - 1.60	1.58 - 1.68
36	1.69 - 1.79	1.77 - 1.87	180	1.50 - 1.60	1.58 - 1.68
40	1.68 - 1.78	1.76 - 1.86	220	1.49 - 1.59	1.57 - 1.67
50	1.64 - 1.74	1.72 - 1.82			

FEPA 44 - 1:2006 \*Treatment (RC or ST) can affect bulk density by  $\pm$  0.05 g/cm<sup>3</sup>

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Updated: 04/13



# BT — Brown Aluminum Oxide

## BROWN FUSED ALUMINA (AL<sub>2</sub>O<sub>3</sub>) MICROGRITS FOR COATED ABRASIVES

### ABOUT:

BT is a brown fused aluminum oxide obtained by a reduction fusion of high quality bauxites in electric arc furnaces. Due to its high toughness, BT is recommended for high performance grinding wheels.

TYPICAL CHEMICAL ANALYSIS			
Al <sub>2</sub> O <sub>3</sub>	94.76%		
TiO <sub>2</sub>	3.10		
SiO <sub>2</sub>	1.12		
Fe <sub>2</sub> O <sub>3</sub>	0.35		
MgO	0.37		

TYPICAL PHYSICAL PROPERTIES		
Specific Gravity:	3.96 g/cc	
Knoop 100 Hardness:	1850 kg/cm <sup>2</sup>	

GRIT SIZE SPECIFICATIONS					
<b>-</b>	Ds 0 (μm)	Ds 3 (µm)	Ds 50 (μm)		Ds 94 (µm)
Grit	Maximum	Maximum	<b>M</b> inimum	<b>M</b> aximum	<b>M</b> inimum
F240	110.0	81.7	56.5	60.5	44.5
F280	101.0	74.0	50.2	54.2	39.2
F320	94.0	66.8	44.7	47.7	34.2
F360	87.0	60.3	39.0	42.0	29.6
F400	81.0	53.9	33.5	36.5	25.2
F500	77.0	48.3	28.7	31.7	21.5
F600	72.0	43.0	24.8	26.8	18.0
F800	67.0	38.1	20.8	22.8	15.1
FEPA 43 - 2:2006					
*Other grit sizes available upon request					

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