

BT - BROWN ALUMINUM OXIDE

Brown Fused Alumina (Al_2O_3) for bonded abrasives

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 Physical Properties

True Specific Gravity	Knoop 100 Hardness	Toughness (ANSI-B74.8R2007)
3.96 g/cm ³	1,850 kg/cm ²	52%

Typical Chemical Analysis by XRF (%)

Al ₂ O ₃	TiO ₂	SiO ₂	Fe ₂ O ₃	MgO
95.61	2.55	0.90	0.23	0.32

Types of Treatment

	Not Treated	Red Coated (RC)*	Silane Treated (ST)*
(LD)	BTLD R	BTLDRC R	BTL DST R
(R)	BT R	BTRC R	BTST R
(HD)	BTHD R	BTHDRC R	BTH DST R

Bulk Density (g/cm³)

Grit Size	(LD) sharp	(R) cubic	(HD) super cubic
10	1.79	1.90	2.01
12	1.80	1.91	2.02
14	1.80	1.91	2.02
16	1.79	1.80	2.01
20	1.79	1.80	2.01
22	1.79	1.80	2.01
24	1.78	1.89	2.00
30	1.77	1.88	1.99
36	1.77	1.88	1.99
40	1.75	1.86	1.97
46	1.74	1.85	1.96
54	1.70	1.81	1.92
60	1.68	1.79	1.90
70	1.65	1.76	1.87
80	1.63	1.74	1.85
90	1.60	1.71	1.83
100	1.58	1.69	1.80
120	1.55	1.66	1.77
150	1.54	1.65	1.76
180	1.51	1.62	1.73
220	1.49	1.60	1.71

FEPA 44 - 1:2006

*Treatment (RC or ST) can affect bulk density by ± 0.05 g/cm³

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