

BTCAL - BROWN ALUMINUM OXIDE

Heat Treated Brown Fused Alumina (Al₂O₃) for bonded abrasives

BTCAL is a brown fused aluminum oxide obtained by a reduction fusion of high quality bauxites in electric arc furnaces. BTCAL is heat treated in a rotary kiln at high temperatures and magnetic treated. These procedures guarantee low iron content and high toughness. BTCAL 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	46%

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)	BTCALLD R	BTCALLDRC R	BTCALLDST R
(R)	BTCAL R	BTCALRC R	BTCALST R
(HD)	BTCALHD R	BTCALHDRC R	BTCALHDST 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

The information contained in this data sheet has been determined through the application of accepted engineering practice and is believed to be reliable. Since the conditions of application and use of our products are beyond our control, no warranty is expressed or implied regarding accuracy of the information, the results to be obtained from use of the product, or that such use will not infringe on any patent. This information is furnished with the express condition that you will make your own tests to determine the suitability of the product for your particular use.

