



SFAR – BROWN ALUMINUM OXIDE

SEMI-FRIABLE BROWN FUSED ALUMINA (AL₂O₃) FOR BONDED ABRASIVES

ABOUT:

SFAR is a semi-friable brown fused aluminum oxide obtained from the fusion of high purity bauxites in electric arc furnaces. In order to improve its quality this material is calcined and presents low dust content. It is recommended for high performance bonded abrasives.

TYPICAL CHEMICAL ANALYSIS

Al ₂ O ₃	97.64%
TiO ₂	1.43
SiO ₂	0.53
Fe ₂ O ₃	0.12

TYPICAL PHYSICAL PROPERTIES

Specific Gravity:	4.01 g/cc
Knoop 100 Hardness:	1900 kg/cm ²
Toughness:	45% (ANSI-B74.8 R2007)

TYPES OF TREATMENT

Treatment	SHAPE
	Blocky
Not Treated	SFAR R
Red Coated (RC)*	SFARRC R
Silane Treated (ST)*	SFARST R

BULK DENSITY (g/cc)

Grit Size	R	Grit Size	R
10	1.86 - 1.96	50	1.75 - 1.85
12	1.86 - 1.96	60	1.75 - 1.85
14	1.85 - 1.95	70	1.71 - 1.81
16	1.84 - 1.94	80	1.70 - 1.80
20	1.84 - 1.94	90	1.67 - 1.77
24	1.82 - 1.92	100	1.65 - 1.75
30	1.83 - 1.93	120	1.62 - 1.72
36	1.83 - 1.93	150	1.54 - 1.64
40	1.75 - 1.85	180	1.54 - 1.64
46	1.75 - 1.85	220	1.53 - 1.63

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

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Updated: 04/13



SFAR – BROWN ALUMINUM OXIDE

SEMI-FRIABLE BROWN FUSED ALUMINA (AL₂O₃) MICROGRITS FOR BONDED ABRASIVES

ABOUT:

SFAR is a semi-friable brown fused aluminum oxide obtained from the fusion of high purity bauxites in electric arc furnaces. SFAR presents good toughness and excellent abrasion properties. It is recommended for high performance bonded abrasives.

TYPICAL CHEMICAL ANALYSIS

Al ₂ O ₃	96.79%
TiO ₂	1.94
SiO ₂	0.51
Fe ₂ O ₃	0.25
MgO	0.16

TYPICAL PHYSICAL PROPERTIES

Specific Gravity:	4.05 g/cc
Knoop 100 Hardness:	1900 kg/cm ²
Crystalline Structure:	α - Alumina

GRIT SIZE SPECIFICATIONS

Grit	Ds 3 Maximum	Ds 50		Ds 94 Minimum
		Minimum	Maximum	
F230	82.0	50.0	56.0	34.0
F240	70.0	42.5	46.5	28.0
F280	59.0	35.0	38.0	22.0
F320	49.0	27.7	30.7	16.5
F360	40.0	21.3	24.3	12.0
F400	32.0	16.30	18.30	8.0
F500	25.0	11.8	13.8	5.0
F600	19.0	8.3	10.3	3.0
F800	14.0	5.5	7.5	2.0
F1000	10.0	3.7	5.3	1.0
F1200	7.0	2.5	3.5	1.0

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*Other grit sizes available upon request

USEM

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