

## AR

### Brown Fused Aluminum Oxide

AR is a brown fused aluminum oxide obtained from the fusion of high purity bauxites in electric arc furnaces. It presents an excellent cost/benefit relation, being recommended for refractory application where a high iron content is not an issue. AR splits bigger than 2.00mm are not recommend for molded refractories used at temperatures higher than 1,300 oC.

#### General Characteristics

True Specific Gravity	Melting Point	Crystalline Structure	Color
3.94 g/cm <sup>3</sup>	2,020 °C	α - Alumina	Brown

#### Chemical Analysis by XRF (%)

Al <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO
95.93	1.74	0.95	0.76	0.14

#### Typical Physical Properties

Apparent Porosity	Apparent Specific Density
3.32%	3.82 g/cm <sup>3</sup>

Apparent Porosity and Apparent Specific Density by ASTM Designation C 20-00.

#### Grit Size

Size (astm)	Size (mm)
3/4" / 5/16"	19.1 - 8.00
5/16" / 4	8.00 - 4.75
4 / 10	4.75 - 2.00
10 / 20	2.00 - 850 μm
10 / 40	2.00 - 425 μm
20 / 40	850 - 425 μm
40 / 200	425 - 75 μm
TPF II	- 212 μm
200 MF	- 75 μm
325 MF	- 45 μm

\* Other grit sizes upon request.