

Technical Data Sheet Brown Aluminium Oxide

Trade Name: Brown Fused Alumina (Commercial Quality)
 Part Reference: BA
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SECTION 1 Chemical Analysis

A high grade commercial brown fused alumina manufactured from bauxite, silica, coke and iron. A tough and aggressive electro mineral first discovered at the turn of the 1900's. Manufacturing procedures substantially improved over the years now offering a highly consistent synthetic mineral for use in a myriad of applications from general blasting and surface finishing of non-aero components, anti-slip flooring, vibratory finishing medias, safe manufacture, coated & bonded abrasives and polishing compounds.

Substance	Chemical Formula	CAS No	EC No	Typical Content %
Aluminium Oxide	Al ₂ O ₃	1344-28-1	215-691-6	95
Silicon Dioxide (amorphous)	SiO ₂	7631-86-9	231-545-4	0.6-1.2
Titanium Dioxide	TiO ₂	13463-67-7	236-675-5	2.5 - 3.5
Iron Oxide	Fe ₂ O ₃	1309-37-1	215-168-2	0.4
Calcium and Magnesium Oxide	CaO and MgO	1305-78-8 1309-48-4	215-138-9 215-171-9	<0.6
Oxide	MgO			0.26
Alkali Metals	Na ₂ O K ₂ O	1313-59-3 12136-45-7	215-208-9 235-227-6	<0.01

SECTION 2 Physical Properties

Shape	Semi- cubical
Colour	Brown
Specific Gravity	3.95 g/cc
Bulk Density	1.64-1.88g/cc (subject to grade)
Hardness	9 moh/2000 knoop Diamond
Typical Conductivity	36# 0.0685 mS/cm
	80# 0.0778 mS/cm
	150#0.0745 mS/cm

SECTION 3 Particle Size Distribution

FEPA F and P grits in the macro range 8 to 220 mesh and in the micro range 240 to 1200 mesh. Bespoke and blended grades are available on request.

SECTION 4 Compliance

This product is REACH compliant. See SDS 37 on our web site.

Special Precautions. In use, protection is required to meet threshold limit values for general dusts of 10 mg/m³ (for total inhalable dust) and 5 mg/m³ (respirable dust). Please also note the OELs for amorphous silicon dioxide dust of 6mg (inhalable) and 2.4 mg/m³ (respirable). The user must establish any hazards present in the surface coatings being removed, which may reduce the occupational exposure standard (O.E.S.). The Petroleum section of the National Safety Council carried out research and concluded that the sparks generated when grit blasting are not capable of igniting inflammable atmospheres providing special precautions are taken. These results were later confirmed by a leading U.K. Oil Company. Refer to our Technical Dept. for copies of reports.

SECTION 5 Disposal

The abrasive must be disposed of in accordance with national legislation (See Section 16) and local regulations. The material as supplied is classed as a non-hazardous inert solid waste. Spent abrasive used as a blasting medium must be disposed of under classification 12 01 16 (waste blasting material containing dangerous substances) or 12 01 17 (waste blasting material other than those mentioned in 12 01 16). The waste producer must determine if hazardous substances in the coating being removed are likely to cause the waste to be hazardous.

SECTION 6 Handling and Storage

Load per pallet should not exceed 1 tonne and the pallets should not be stacked more than two high. Material should be kept dry.