

## Technical Data Sheet Premium Brown Aluminium Oxide

Trade Name: Premium Brown Fused Alumina (Aerospace Quality)  
 Part Reference: PBA  
 PBA-AB  
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### SECTION 1 Chemical Analysis

This high quality brown fused alumina is specifically approved for aerospace applications.

A tough and aggressive electro mineral first discovered at the turn of the 1900's. Our product has been validated and approved by a vast array of aerospace OEM clients for use in deshelling, surface finishing, deburring and the majority of surface improvement applications. Certification: Rolls Royce CSS12, Airbus ABR9-0160, Rolls Royce OMAT 184; 1/293; 145; 1/244; 146; 1/266; 1/39; 1/314. Pratt & Whitney; PMC3044, PMC3045, PMC3052, PMC3079, PMC3121, PMC3123, PMC3132, PMC3155, PMC3187, PMC3202 and compliant to GE Aircraft Engines D50TF5.

Substance	Chemical Formula	CAS No	EC No	Typical Content %	Guaranteed limits%
Aluminium Oxide	Al <sub>2</sub> O <sub>3</sub>	1344-28-1	215-691-6	>95	94 min
Silicon Dioxide (amorphous)	SiO <sub>2</sub>	7631-86-9	231-545-4	0.6-1.2	1.5 max
Titanium Dioxide	TiO <sub>2</sub>	13463-67-7	236-675-5	2.5 - 3.5	3.5 max
Iron Oxide	Fe <sub>2</sub> O <sub>3</sub>	1309-37-1	215-168-2	0.4	0.4 max
Calcium Oxide	CaO	1305-78-8	215-138-9	0.05	0.2 max
Magnesium Oxide	MgO	1309-48-4	215-171-9	0.26	0.5 max
Chromium Oxide	CR <sub>2</sub> O <sub>3</sub>	1308-38-9	215-160-9	<0.01	0.01 max
Alkali Metals	Na <sub>2</sub> O K <sub>2</sub> O	1313-59-3 12136-45-7	215-208-9 235-227-6	<0.01	1.0 max
Elemental Lead	Pb			<1ppm	5ppm max
Acid Extractable Iron	Fe			0.025	0.3 max

Determined by FAAS, XRF and XRD techniques.

### SECTION 2 Physical Properties

Shape	Semi- cubical
Colour	Brown
Specific Gravity	3.95 g/cc
Bulk Density	Subject to grade/size distribution
Hardness	9 moh/2000 knoop Diamond

## **SECTION 3**

### **Particle Size Distribution**

FEPA F and P grits in the macro range 8 to 220 mesh and in the micro range 280 to 500 mesh. Bespoke and blended grades are available on request.

## **SECTION 4**

### **Compliance**

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

Special Precautions. In use, protection is required to meet threshold limit values for general dusts of 10 mg/m<sup>3</sup> (for total inhalable dust) and 5 mg/m<sup>3</sup> (respirable dust). Please also note the OELs for amorphous silicon dioxide dust of 6mg (inhalable) and 2.4 mg/m<sup>3</sup> (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.