

## Technical Data Sheet

### Premium White Aluminium Oxide

Trade Name: Premium White Fused Alumina  
 Part Reference: PWA  
 PWA-AB  
 Original Issue Date: April 2014  
 This Issue: November 2022

## SECTION 1

### Chemical Analysis

Our high quality white fused alumina specifically approved for aerospace applications. An aggressive electro mineral manufactured from purer calcined aluminas and selected for purity in manufacture. Our product has been validated and approved by a vast array of aerospace OEM clients for use in precision surface finishing and specialised surface improvement applications on super alloy and stainless components. Certification: Rolls Royce CSS12, Airbus ABR9-0160, Rolls Royce OMAT 184; 1/293; 145; 1/244; 146; 1/266; 1/39; 1/314. Compliant to GE Aircraft Engines D50TF5. With effect 2009 materials are acid washed where applicable as part of the processing regime. Pratt & Whitney; PMC3044, PMC3045, PMC3052, PMC3079, PMC3121, PMC3123, PMC3132, PMC3155, PMC3187, PMC3202.

Substance	Chemical Formula	Typical Content %	Guaranteed Limits%
Aluminium Oxide	Al <sub>2</sub> O <sub>3</sub>	99.4	98.75 min
Silicon Dioxide	SiO <sub>2</sub>	<0.05	0.1 max
Iron Oxide	Fe <sub>2</sub> O <sub>3</sub>	<0.05	0.1 max
Calcium Oxide	CaO	<0.05	0.05 max
Magnesium Oxide	MgO	<0.05	0.05 max
Chromium Oxide	Cr <sub>2</sub> O <sub>3</sub>	0.007	0.01 max
Alkali Metals	Na <sub>2</sub> O & K <sub>2</sub> O	0.62	1.0 max
Elemental Lead	Pb	<1ppm	5ppm max
Acid Extractable Iron	Fe	0.025	0.3 max
Acid Extractable Lead	Pb	<3ppm	20ppm max

## SECTION 2

### Physical Properties

Shape	Angular
Colour	White
Specific Gravity	3.95 g/cc
Bulk Density	subject to grade/size distribution
Hardness	9.5 moh/2200 knoop Diamond
Packaging	25kg multi-ply paper sacks

## 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 38A 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/m<sup>3</sup>(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.).

## 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.