

# SALBEX WELDING GRADE – DATA SHEET

SALBEX Weld Grade sheet is a tough, rigid, PVC product available in a range of transparent colours. In addition to exceptional impact strength, Salbex has excellent chemical resistance, high tensile strength, and dimensional stability, low thermal conductivity and good electrical properties. The material is non-notch sensitive which means that its impact properties are not adversely affected even after the sheet has been thermoformed, glazed, drilled and fabricated.

SALBEX Weld Grade has been designed to exceed the requirements of BS3757:1978 Type A3, the classification for enhanced impact performance. The material was specifically developed for use in the fabrication of welding screens and shields; items used to protect third party observers from accidental exposure to welding arc. It should not be used in personal protective equipment such as welding goggles or masks.

Fabrication is easy with SALBEX sheet, which can be sawn, drilled, routed, milled and welded.

The maximum service temperature of 60°C (subject to chemical resistance considerations) can be increased to 95°C if armoured with glass reinforced polyester (GRP).

## Physical Properties

Property	Value	Method
Specific gravity	1.31	DIN 53479
Vicat Softening Point	79 +/- 1°C	DIN EN ISO 306 (5kg; air)
Tensile strength	42-50 N/mm <sup>2</sup>	DIN EN ISO 527 / 1-3
Elongation at Break	50-100 %	DIN EN ISO 527 / 1-3
Izod impact strength	120 kJ/m <sup>2</sup>	ASTM D256
Coefficient of thermal linear expansion.	8 x 10 <sup>-5</sup> per unit of length per °C	
Maximum service temperature	60°C	
Flammability *	V-O UL94	Vertical burn test
Volume resistivity	10 <sup>15</sup> ohm/cm	BS2782:1983 Method 230A
Surface resistivity	10 <sup>14</sup> ohm	BS2782:1983 Method 231A
Dielectric strength	14 kV/mm	BS2782:1983 Method 220 and 221

\*3mm sheet

## **Chemical Resistance**

### **Organic Compounds**

Salbex is unaffected by aliphatic hydrocarbons (most oils and greases), as well as aliphatic alcohols. It is attacked by aromatic and chlorinated hydrocarbons, ketones, ethers, esters and amines. Usually these organic compounds will cause swelling of the PVC by solvent action.

### **Inorganic Compounds**

At temperatures of up to 60°C, Salbex is resistant to attack by most inorganic liquids including moderately concentrated acids, all alkalis and aqueous salt solutions at all concentrations. Powerful oxidising agents including oxidising acids will attack it in certain conditions. A more comprehensive chemical resistance datasheet can be obtained on request from Sallu Plastics.

### **Cleaning**

Cleaning is best carried out with dilute soap or detergent solution before being rinsed thoroughly using fresh water. Proprietary cleaners should be avoided as they may contain solvents or abrasives which could damage the material surface.

### **Shelf Life**

Material should be stored in a cool, dry environment between 5-25°C.