

## TECHNICAL DATA SHEET

### 2 Part Polyurethane Foam - Part A

#### Low Density Rigid Polyurethane Foam System

**2 Part Polyurethane Foam - Part A** is a low density, two-part closed cell rigid foam system with a density ~48 kg/m<sup>3</sup> which has been specially formulated & contains a significant level of fire-retardant additive which helps the foam resist ignition. Contains no chlorofluorocarbons (CFC's) or halo-chlorofluorocarbons (HCFC's) and has an Ozone Depletion Potential (O.D.P.) of zero & very low GWP (Global Warming Potential) with an overall figure of < 5 where Carbon Dioxide is given as 1.

#### APPLICATIONS

- Lightweight mouldings or castings where applications require a combination of physical strength characteristics and good thermal insulation.
- Building insulation and refrigeration doors & panels
- Lightweight infill of fibreglass or plastic components
- Filling of large voids where the foams balanced flow behaviour leads to good cell structure and adhesion to a wide range of substrates such as aluminium and steel.
- GRP manufacturing, including tanks, cabinets, sections and shaping.

#### PROCESSING

**2 Part Polyurethane Foam - Part A** is suitable for the manufacture of general-purpose rigid foam. It is quick reacting relying on the thorough mixing of two low viscosity liquids by pour in place hand or drill mixing processes.

- In hand mixing the Component A should be pre-mixed for at least one minute to aerate it, before mixing with the Component B. After mixing, the foam should be immediately transferred to the mould or cavity to be filled. Pouring should be finished before there is any significant amount of expansion.
- Machine mix techniques such as high-pressure and low-pressure dispensing machines are acceptable allowing fast manufacturing speeds.
- Best results are obtained if the foam rise is restricted, but it may be free risen if necessary.
- The foam should be processed between the temperatures of 18 – 23 °C, best results are achieved if the surfaces in contact with the rising foam are at a temperature of at least 25 °C.

#### TYPICAL PROPERTIES

Appearance	2 Part PU Foam - Part A 2 Part PU Foam - Part B	Clear, hazy straw like liquid Dark brown liquid
Density	2 Part PU Foam - Part A 2 Part PU Foam - Part B	1.07 g/cm <sup>3</sup> 1.23 g/cm <sup>3</sup>
Mix ratio (w/w) – parts by weight	2 Part PU Foam - Part A 2 Part PU Foam - Part B	100 grams 120 grams
Cream Time	73g at 20 °C	25 – 35 seconds
String Time	73g at 20 °C	125 – 150 seconds
Rise Time	73g at 20 °C	180 -230 seconds
Foam Density	Free rise	48 - 50 kg/m <sup>3</sup>
Core Density	Cut from foam core	41 - 43 kg/m <sup>3</sup>
Thermal Conductivity	Initial at 23 °C	0.03 W/m°K
Compressive Strength at 10% Compression	kPa	240 kPa from foam core

#### STORAGE & HANDLING

It is extremely important that containers should be re-sealed immediately after use to prevent the entry of moisture which will adversely affect the resultant foam. The shelf life of the materials is five months when stored in sealed drums within the recommended temperature range of 10 – 30 °C.

#### Please refer to the separate Safety Data Sheets before using these products.

The data contained in this sheet is to our knowledge true and accurate, but recommendations are made without guarantee or warranty since application and conditions are outside our control. It is suggested that users should carry out their own tests to ensure 2 Part Polyurethane Foam meets their requirements.

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