

## TRIPOR 227 NR

### RIGID POLYURETHANE FOAM SYSTEM

**Tripor 227 NR** is a low density rigid polyurethane foam system which may be used to manufacture mouldings & is suitable for structural infill of fibreglass or plastic components. This polyurethane foam system relies on the thorough mixing of two low viscosity liquids by either hand or machine mix techniques. The system contains a significant level of fire retardant additive which will help to resist ignition of the foam.

**Tripor 227 NR** has an Ozone Depletion Potential (O.D.P.) of zero and uses blowing agents with a low GWP (Global Warming Potential) giving an overall figure of < 5 where Carbon Dioxide is given as 1.

The polyurethane foam is produced by the mixing together **Tripor 227 NR Component A and Tripor Component B** at a ratio of 1 to 1.3 by weight (or 1 to 1.16 by volume, by weight is the preferred method). It is vitally important that quantities are accurately weighed out before mixing thoroughly. When hand mixing, the Component A should be pre-mixed for about 30 seconds to aerate it before mixing with the Component B. After mixing, the foam should be immediately poured into the mould or cavity to be filled, pouring of the foam should be finished before there is any significant amount of expansion of the foam. Best results are obtained if the foam rise is restricted by a mould but can also be allowed to free-rise if required.

The foam should be processed between the temperatures of 18 - 23°C, temperatures lower than 18°C may give unsatisfactory results. It is recommended that both components are kept in a warm environment for several hours before use. Lower temperatures will give a slower reaction & higher temperature a faster reaction. The quantity of chemicals mixed will also affect reaction times, larger amounts will give shorter reaction times & small amounts longer times. Best results are achieved if the surfaces in contact with the rising foam are at least 25°C.

The following reaction times are typical for a Quality Control procedure for the checking of cream, string and rise times, and measurement of the free rise density. The test is conducted at a temperature of 19 -21 °C, using 31.6 grams of Component A and 41.1 grams of Component B mixed together in a cup of ~600 ml volume, stirred intensively for 10 seconds using a bench stirrer rotating at ~2000 rpm. Immediately after mixing, the chemicals are transferred to a second 600 ml cup.

Cream Time	25-35 seconds	(from start of mixing to start of rise)
String Time	140-160 seconds	(from start of mixing to when a thread can be drawn from rising foam with an inserted rod)
Rise Time	180-230 seconds	(from start of mixing to end of rise)
Tack Free Time	260-300 seconds	(from start of mixing till surface can be lightly touched without foam sticking)
Density (Free rise)	48 - 50 kg/M <sup>3</sup>	(weight of cups contents divided by volume of cup)
Core Density	41 - 43 kg/M <sup>3</sup>	(density of piece cut from foam core)
Mix ratio (A : B)	1 : 1.3	(by weight w/w)

#### STORAGE & HANDLING

It is very important that the containers are re-sealed straight 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 at the recommended temperature range of 10 - 30°C, users are recommended not to hold in stock longer than necessary.

#### PLEASE REFER TO THE SAFETY DATA SHEETS FOR SAFE USE OF THIS PRODUCT.

The information 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 'Tripor 227 NR' meets their requirements.