

## '80' DUROMETER Fluid Elastomer

**ThistleBond '80 DUROMETER Fluid Elastomer'** is a 80 Durometer high performance fluid elastomer which has been specifically developed for casting and moulding of rubber components and is suitable for use on impellers, chutes, hoppers valves, rollers, gaskets, cables, hoses etc.

**ThistleBond '80 DUROMETER Fluid Elastomer'** is based on a complex blend of polyols and polyesters in combination with amine catalysts and activators to produce a cold vulcanising product with outstanding mechanical strength.

The properties of **ThistleBond '80 DUROMETER Fluid Elastomer'** have been designed to match factory produced rubbers.

**Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.**

### SURFACE PREPARATION

All existing dirt, oil and grease should be removed and the surface wiped with **ThistleBond 'Cleaner'**.

Any areas of frayed or fragmented rubber should be cut away to provide a sound repair area.

Smooth surfaces including metals, should be mechanically etched to produce a good profile, with abrasive blasting being preferred for metal substrates. Rubber surfaces are best roughened using a stiff wire brush / comb.

Edges of repair areas of belts, hoses, tyres etc. should be undercut.

All loose dust and particles must be removed and the surface given a final wipe with **ThistleBond 'Cleaner'**.

On certain repairs such as gaskets and castings where one surface is not required to bond to the **ThistleBond '80 DUROMETER Fluid Elastomer'**, these surfaces should be treated with **ThistleBond 'Release Agent'**.

### PRIMING

All areas to be repaired or resurfaced should be first primed with **ThistleBond 'Elastomer Primer'**.

The primer should be applied with a soft bristled brush to give an even, but low coating thickness, taking care to avoid ponding of the primer.

The primer should be allowed a minimum of 60 minutes and a maximum of 8 hours at 20°C (68°F) before applying the **ThistleBond '80 DUROMETER Fluid Elastomer'**

### MIXING

**ThistleBond '80 DUROMETER Fluid Elastomer'** is a two component material which must be mixed together prior to use.

The contents of the resin container should be transferred to the mixing container provided. The contents of the hardener should be added to the resin with continuous stirring to produce a streak free viscous liquid.

Where less than full unit mixes are required it is essential that the product be mixed accurately weighing out the quantities of resin and hardener.

Thorough mixing is extremely important, and once the material appears mixed, a further period of mixing should be carried out to ensure there is no unmixed material.

## APPLICATION

For casting / moulding the mixed product should be poured into the prepared mould, the filled mould should be gently vibrated to aid the release of trapped air.

All equipment must be cleaned IMMEDIATELY after use with **ThistleBond 'Cleaner'**.

### Volume Capacity

933cc (57 cu ins) per kilo

## PHYSICAL CONSTANTS

| Mixing Ratio | Resin | Hardener |           |
|--------------|-------|----------|-----------|
|              | 1.08  | 1        | By volume |
|              | 100   | 94       | By weight |

| Appearance | Resin                | Hardener             |
|------------|----------------------|----------------------|
|            | Black Viscous Liquid | Clear Viscous Liquid |

### Drying & Cure times at

|             |                 |            |
|-------------|-----------------|------------|
| 20°C (68°F) | Usable Life     | 15 minutes |
|             | Initial Set     | 1 hour     |
|             | Machining       | 16 hours   |
|             | Full Mechanical | 3 days     |

**Volume Solids** 100%

**V.O.C.** Nil

**Shelf Life** Use within 12 months of purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F)

### Operating Temperature

|          | Maximum       | Continuous   |
|----------|---------------|--------------|
| Dry Heat | 120°C (250°F) | 80°C (176°F) |
| Wet Heat | 80°C (175°F)  | 50°C (122°F) |

FOR FURTHER INFORMATION PLEASE CONTACT

## PHYSICAL PROPERTIES

TR315/1006

|  |  |
|--|--|
| <b>Tensile Strength</b><br>ASTMD412                      | 15.2N/mm <sup>2</sup> (2200 psi)                   |
| <b>Tear Strength</b><br>ASTMD624                         | 53.2N/mm (300 pli)                                 |
| <b>Elongation</b><br>ASTMD412                            | 500%   |
| <b>Shore A Hardness</b><br>ASTMD2240                     | 80   |
| <b>Di-electric Strength</b><br>ASTMD149                  | 16 volts/micron (400 volts/mil)                    |
| <b>Peel Adhesion</b><br>(concrete and steel)<br>ASTMD903 | 9kg/cm (50pli) cohesive failure<br>in 80 DUROMETER |

## HEALTH AND SAFETY

As long as normal good practice is observed **ThistleBond '80 DUROMETER Fluid Elastomer'** can be safely used.

Protective gloves should be worn.

A fully detailed **Material Safety Data Sheet** is either included with the material or is available on request.

## PACKAGING

Supplied in 0.600 kg packs.

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests. Detailed specifications are available on request from the company.



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