



*UPS 310 RG '60' Durometer Rapid Elastomer* is a high performance fluid grade elastomer which has been specially developed for the repair of rubber components by trowel or putty knife and is suitable for use on impellers, chutes, hoppers, valves, rollers, gaskets, hoses, conveyor belts, off road tyres etc.

*UPS 310 RG '60'* is based on a complex blend of polyols and polyesters in combination with amine catalysts and activators to produce a cold vulcanizing product with outstanding mechanical strength.

The properties of *UPS 310 RG '60'* have been designed to match factory produced elastomers.

#### Product Features

- Designed for application by trowel or spatula at thicknesses up to 6mm.
- Provides good cold vulcanizing capabilities.

#### Product Applications

Designed for use to repair conveyor belts, rollers, gaskets, hoses, off road tyres, etc.

**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 *UPS TAC 883 Universal 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 re best roughened using a stiff wire brush / comb. Edges or repair areas of belts, hoses, tyres etc. should be undercut all loose dust and particles should be blown clear of prepared surface.

On certain repairs such as gaskets and castings where one surface is not required to bond to *UPS 310 RG '60'*,

these surfaces should be treated with *UPS TAC 872 Release Agent*.

#### Priming

All areas to be repaired or resurfaced should be first primed with a special fast setting primer comprising of *UPS TAC 075 Urethane Primer* & *UPS FTPC Primer Catalyst*. The contents of the catalyst bottle should be added to the primer container immediately prior to use and the container should then be shaken to ensure complete mixing is achieved.

After use the container should be resealed, taking care not to contaminate the contents. This resealed *UPS TAC 075* will have a limited shelf life of up to 3 months. The primer should be applied with a soft bristle 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 10 minutes and a maximum of 1 hour at 20°C before applying *UPS 310 RG '60'*.

#### Mixing

*UPS 310 RG '60'* is a two component material supplied either as 125gm sachets or 0.6kg units which must be mixed together prior to use.

#### A)

#### Sachets

Remove outer wrapper using scissors to cut off corner, taking care not to damage the inner pack.

Extract the central dividing pin which separates the two components in the sachet.

Mix the two components together by hand, squeezing the pack and kneading the mixture for 1-2 minutes. To ensure complete mixing the product must then be transferred to a mixing board as follows.

Using scissors cut off the corner of the pack to allow the mixed product to be dispensed into a mixing board, the product should then be mixed until completely homogenous, this will normally take a further 60 seconds.

#### B)

600gm

Units

Two volumes of Base and one volume of Activator should be measured onto a clean surface and the two components mixed thoroughly to produce a smooth streak free material.

Thorough mixing is extremely important, and once the material appears mixed, a further period of mixing

should be carried out to ensure there is not unmixed material. Once mixed the material should be used within 8 minutes, at 20°C (68°F).

### Application

The mixed material should be pressed firmly onto the prepared area working the product into cracks or defects on the surface. Where necessary, reinforcement rrape (*UPS TBRT 4*) should be bedded into the material and overlapped to provide multi-layer reinforcement.

All equipment must be cleaned immediately after use with *UPS TAC 883 Universal Cleaner* or MEK.

### Physical Constraints

|                        |                         |
|------------------------|-------------------------|
| <b>Volume Capacity</b> | 923cc (56.3cu ins / kg) |
|------------------------|-------------------------|

| Mixing Ratio | Base | Activator |
|--------------|------|-----------|
| By Weight    | 2    | 1         |
| By Volume    | 2    | 1         |

|               |       |
|---------------|-------|
| <b>Colour</b> | Black |
|---------------|-------|

| Drying & Cure Times at 20°C (68°F) |            |
|------------------------------------|------------|
| Useable Life                       | 8 minutes  |
| Initial Set                        | 30 minutes |
| Machining                          | 1 hours    |
| Full Mechanical                    | 24 hours   |

|                      |      |
|----------------------|------|
| <b>Volume Solids</b> | 100% |
|----------------------|------|

|                            |     |
|----------------------------|-----|
| <b>V.O.C (As Supplied)</b> | Nil |
|----------------------------|-----|

|                       |           |
|-----------------------|-----------|
| <b>Film Thickness</b> | Up to 6mm |
|-----------------------|-----------|

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

| Maximum Operating Temperatures |              |
|--------------------------------|--------------|
| Dry Heat                       | 80°C (176°F) |
| Wet Heat                       | 50°C (122°F) |

### Physical Properties

|  |                              |
|--|------------------------------|
| <b>Tensile Strength<br/>ASTM D 412</b> | 6N/mm <sup>2</sup> (900 psi) |
|--|------------------------------|

|   |         |
|---|---------|
| <b>Dielectric Strength<br/>ASTM D 419</b> | 16KV/mm |
|---|---------|

|                                  |      |
|----------------------------------|------|
| <b>Elongation<br/>ASTM D 412</b> | 600% |
|----------------------------------|------|

|  |               |
|--|---------------|
| <b>Dry Heat Resistance<br/>ASTM D 2485</b> | 120°C (250°F) |
|--|---------------|

|   |    |
|---|----|
| <b>Shore A Hardness<br/>ASTM D 2240</b> | 60 |
|---|----|

|                                     |   |
|-------------------------------------|---|
| <b>UV Resistance<br/>BS 3900:F3</b> | No loss in properties after 1000 hours exposure |
|-------------------------------------|---|

|                                     |                  |
|-------------------------------------|------------------|
| <b>Tear Strength<br/>ASTM D 624</b> | 20N/mm (150 pli) |
|-------------------------------------|------------------|

|  |   |
|--|---|
| <b>Peel Adhesion (Concrete &amp; Steel)<br/>ASTM D 903</b> | 9kg/cm (50 pli) – Cohesive failure in product |
|--|---|

### Packaging

*UPS 310 RG '60'* is supplied in the following;  
10 X 125gm sachets  
4 X 0.6kg

### Health And Safety

As long as normal good practice is observed *UPS 310 RG '60'* can be safely used. Protective gloves should be worn during use.

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

The information provided in this Technical 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 Unique Polymer Systems LTD. Users should determine the suitability of the product for their own particular purposes by their own tests.

Unique Polymer Systems LTD  
Unit 1 Bankside Industrial Estate  
Little Marcle Road  
Ledbury  
Herefordshire  
HR8 2DR  
United Kingdom