

# 3M™ Scotchkote™ Urethane Elastomer 80XRG 539

## Data Sheet and Application Guide

### Product Description

Scotchkote Urethane Elastomer 80XRG 539 has been specifically developed as a fast curing elastomeric repair system with a high degree of flexibility for rebuilding and resurfacing rubber components.

### Product Features

- Properties similar to factory produced rubber components.
- Provides good cold vulcanising capabilities.
- Designed for use to repair conveyor belts, rollers, gaskets, hoses, off road tyres etc.

### General Application Steps

1. Remove oil, grease and loosely adhering deposits and degraded rubber.
2. Thoroughly abrade the surface, to produce a rough fibrous finish.
3. Apply the 3M™ Scotchkote™ Urethane Elastomer Primer 075 and allow to dry.
4. Apply Scotchkote Urethane Elastomer 80XRG 539 to the required thickness.
5. Allow to cure.
6. Visually inspect the coating for defects.
7. Repair all defects.

### Properties

Property	Value
Colour	Black
Ratio	4:3 By volume 4:3 By weight

#### Drying & Cure times at 20°C (68°F)

Usable life	3 mins
Initial Set	30 mins
Minimum Overcoating	30 mins
Maximum Overcoating	6 hours

**Note:** if two coats are used within the overcoating window, full cross linkings of layers will require an overnight cure or delamination can occur.

Full Mechanical	24 hours
Volume Solids	100%
V.O.C (As Supplied)	Nil
Volume Capacity	932cc per kilo
Theoretical Coverage Rate	0.93 sq metres per kg at 1mm

#### Performance Data

Tensile Strength	10N/mm <sup>2</sup> (1450 psi) (ASTM D412)
Elongation	250% (D412)
Shore A Hardness	80 (ASTM D2240)
Tear Strength	45N/mm (292 pli) (ASTM D624)
Maximum Operating Temperature	80°C (176°F) - Dry 50°C (122°F) - Wet
UV Resistance	No loss in properties after 1000 hours exposure (BS 3900:F3)
Abrasion Resistance	40mgm (0.036ml) loss per 1000 cycles, 1kg load, CS17 Wheel (ASTM D4060)



# Application Procedures for Scotchkote Urethane Elastomer 80XRG 539

## Surface Preparation

All existing dirt, oil and grease should be removed and the surface wiped with 3M™ Scotchkote™ Cleaner 020. 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 should be blown clear of the prepared surface. On certain repairs such as gaskets and castings where one surface is not required to bond to the Scotchkote Urethane Elastomer 80XRG 539, these surfaces should be treated with 3M™ Scotchkote™ Release Agent 035.

## Priming

All areas to be repaired or resurfaced should be first primed with a special fast setting Scotchkote primer comprising 3M™ Scotchkote™ Urethane Elastomer Primer 075 premixed with 3M™ Scotchkote™ Urethane Elastomer 60RG 537 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 help ensure complete mixing is achieved. After use the container should be resealed, taking care not to contaminate the contents. This resealed Scotchkote Urethane Elastomer 60RG 537 Primer will have a limited shelf life of up to 3 months. 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 10 minutes and a maximum of 1 hour at 20°C before applying Scotchkote Urethane Elastomer 80XRG 539.

## Handling and Safety Precautions

Read all health hazard, precautionary and first aid statements found in the Material Safety Data Sheet, and/or product label prior to handling or use.

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## Important Notice

All statements, technical information and recommendations are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using the 3M™ Scotchkote™ Product, you must evaluate it and determine if it is suitable for your intended application. Because conditions of product use are outside of 3M control's and vary widely you assume all risks and liability associated with such use. Any product related statements not contained in current 3M publications, or any contrary statements contained in your purchase order, shall have no force or effect unless expressly agreed to in writing by an authorised officer of 3M.

## Warranty; Limited Remedy; Limited Liability.

3M warrants that the 3M™ Scotchkote™ Product will conform to 3M published specifications upon shipment. If the product is proven not to have met the specifications your exclusive remedy within 12 months of sale by 3M of the product and 3M's sole obligation will be, at 3M's option, to replace the Product or to refund the purchase price of the Product. Except where prohibited by law, this warranty is made in lieu of all other warranties, express or implied, including, but not limited to, any implied warranty of suitability or fitness for a particular purpose, or those arising from a course of dealing, custom or usage or trade.

3M has no obligation under this warranty with respect to any product that has failed due to inadequate or improper storage, handling, surface preparation, application, or maintenance; failure to follow product instructions or recommendations or alteration or damage to the Product caused by accident, neglect, or misuse. OTHER THAN IN THE CASE OF DEATH OR PERSONAL INJURY CAUSED BY ITS NEGLIGENCE AND EXCEPT WHERE PROHIBITED BY LAW, IN NO EVENT SHALL 3M BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGES (INCLUDING LOST PROFITS) ARISING FROM THIS PRODUCT, REGARDLESS OF THE LEGAL THEORY ASSERTED.

## Product Mixing

Scotchkote Urethane Elastomer 80XRG 539 is a two component material supplied in 1kg units which must be mixed together prior to use, 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 thorough mixing is achieved. Once mixed the material should be used within 3 minutes, at 20°C.

## Application Procedures

The mixed material should be smoothed onto the prepared area working the product into cracks or defects on the surface. Where necessary, reinforcement tape should be bedded into the material and overlapped to provide multi-layer reinforcement. The sag resistance increases during the period of usable life which can provide a degree of tailoring of the sag resistance to suit the required repair. All equipment must be cleaned IMMEDIATELY after use with Scotchkote Cleaner 020.

## Packaging and Storage

Supplied in 1kg packs.

Use within 18 months of date of manufacture. Store in original sealed containers at temperatures between 5°C and 32°C.

## Ordering Information/Customer Service

For ordering, technical and product information or to request a copy of the Material Safety Data Sheet, call +44 (0)1609 780170  
For emergencies, please contact +44 (0)1344 858000.



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80XRG 539-0214