



Unique Polymer Systems

ADVANCED POLYMER SURFACE ENGINEERING TECHNOLOGY

Unique Polymer Systems - '80' DUROMETER Paste Elastomer



UPS '80 DUROMETER Paste Elastomer' is a 80 Durometer high performance paste grade elastomer which has been specifically 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 '80 DUROMETER Paste 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 **UPS '80 DUROMETER Paste 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 UPS '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 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 UPS '80 DUROMETER Paste Elastomer', these surfaces should be treated with UPS 'Release Agent'.

PRIMING

All areas to be repaired or resurfaced should be first primed with UPS '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 before applying the UPS '80 DUROMETER Paste Elastomer'

MIXING

UPS '80 DUROMETER Paste 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, and the hardener component added whilst stirring the resin. Soon after blending a soft gel is formed and this gelled material should now be transferred to a mixing board and the product further mixed to ensure the material is completely homogeneous.

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.

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 tape should be bedded into the material and overlapped to provide multi-layer reinforcement.

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

Volume Capacity: 875cc (53 cu ins) per kilo

PHYSICAL CONSTANTS

Mixing Ratio	Resin	Hardener	
	3	2	By volume
	3	2	By Weight

Appearance	Resin	Black viscous liquid
	Hardener	Yellow viscous liquid

Drying & Cure times at 20°C (68°F)

Usable Life	12 minutes
Initial Set	4 hours
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)

PHYSICAL PROPERTIES

Tensile Strength

ASTM D412 197 kg/cm² (2800 psi)

Tear Strength

ASTM D624 58 kg/cm (325 pli)

Elongation

ASTM D412 400%

Shore A Hardness

ASTM D2240 80

Peel Adhesion (Concrete & Steel)

ASTM D903 9 kg/cm (50 pli) – cohesive failure in '80 Durometer

HEALTH AND SAFETY

As long as normal good practice is observed ThistleBond '80 DUROMETER Paste 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 0.600kg packs.

FOR FURTHER INFORMATION PLEASE CONTACT

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.



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