

Unichem's



# MEGA SEAL

*The lasting bond*



We... |  
Protect your House & Industries

- Epoxy Compound • Steel Filled • Aluminium Filled
- Toughset-B • Potting Compound



## MEGASEAL METAL FILLED EPOXY COMPOUNDS

These are two component (Resin & Hardener) epoxy formulation: Resin is an admixture of liquid and metal powder while hardener component is in liquid form.

Two type of MEGA SEAL Metal Filled Epoxy Compound are available for specific application and to have surface match with that of percent material.

MEGA SEAL ALUMINIUM FILLED (AF)

MEGA SEAL STEEL FILLED (SF)

## APPLICATION PROCEDURE

The Resin and hardener component are required to be mixed in the ratio of 10:1 by wt. The Resin component should be stirred and made homogeneous before mixing with Hardener. Mix the two components together thoroughly, the mixed compound sets hard enough in 6 hours. However, it should be allowed to cure for 24 hours for best results. The hardened compound can be given a desired finish by sanding, grinding etc. and can be painted on.

MEGA SEAL Metal Filled Epoxy Compounds can be advantageously used for repairs and maintenance in all types of industries, foundries, garages, hydraulic & water supply and marine equipment etc.

## APPLICATION OF EPOXY COMPOUNDS

A wide range of applications including:-



- **FOUNDRIES AND ENGG. INDUSTRIES** : Filling blow holes, cracks, making up uneven surfaces etc. In ferrous and non-ferrous castings. Ideal for giving smooth radii to joints/corners of wooden or metal patterns.

- **AUTOMOBILE** : Repairing dents, silencer pipes etc. Sealing leakage in radiator, Tanks, Repairing of aluminium Castings.

## PHYSICAL PROPERTIES (TYPICAL VALUES)

As per Test Report From ARAI (The Automotive Research Association of India)  
Ministry of Commerce & Industries Govt. of India

Mega seal Product	Density g./ml.	Impact Kg.cm/cm <sup>2</sup>	Impact Notched Kg.cm/cm <sup>2</sup>	Compression Kg./cm <sup>2</sup>	Flexural Kg./cm <sup>2</sup>	Tensile Kg./cm <sup>2</sup>	Hardness Shore-D	Tensile Adhesive MS to MS Kg./CM <sup>2</sup>	Shear Adhesive MS to MS Kg./CM <sup>2</sup>	Dielectric Strength Kv/mm.	Water Absorption (24 hrs, RT)% by Wt.
STEEL FILLED	2.737	5.670	-	1161	979.70	372.14	80-84	125	80	Mor Than 10	0.172
ALUMINUM FILLED	1.664	5.569	-	1254	506.00	275.70	76-86	130	115	10	0.074
GENERAL PURPOSE PUTTY	2.316	2.900	-	899	333.08	129.87	80	80	95	10	1.170

MEGA SEAL GPN has a temperature resistance of -20°C to + 120°C

MEGA SEAL MEAL FILLED COMPOUND have a temperature resistance of -20°C to + 150°C

**KINDLY REFER INSTRUCTION FOR APPLICATION BEFORE USING**



## MEGA TOUGHSET-B

MEGA SEAL Toughset-B is a two component (resin & hardener) epoxy formulation. The resin component (grey in colour) and hardener component (white in colour) have to be mixed together in the ratio of 1 : 1 by volume, or 10:8 by weight to form a uniform white mixture devoid of any greyish streaks before use. The consistency of the mixture is such that it can be applied with a screw driver, spatula or hard brush. MEGA SEAL Toughset-B does not flow or sag after application. The resin and hardener mixture sets to a tough, resilient mass having excellent adhesion to metals, plastics, rubber, aggregate surfaces and also has excellent insulating and sealing properties.

## APPLICATION:

As an insulation compound:

- Atmospheric action on aluminum/ copper conductors of overhead service connections, jumpers, tappings for street lights etc. leads to oxidation, corrosion and loosening of these joints resulting in improper power supply, leading to open circuits and damage to main conductors. MEGA SEAL Toughset-B is ideal for protecting these joints from atmospheric effects as well as from loosening. Due to inherent resilience, it does not crack due to relative movement of the conductors.
- MEGA SEAL Toughset-B is ideal for preventing flashovers between bus bars, Bus bars/metal enclosures, jumper wires etc. caused by vermin, rodents and birds. Due to its consistency, MEGA SEAL Toughset-B can be easily applied on bus bars and built up to an adequate thickness to provide complete insulation up to 11 KV. Normally two coats, the second coat to be applied after the first one has cured, should be adequate.

As a sealing and repairing compound:

- MEGA SEAL Toughset-B can be used effectively for permanent weather-proofing and preventing ingress of moisture in power cable ends, motor terminal boxes, starters, junction boxes etc.
- MEGA SEAL Toughset-B is also suitable for repairing cracks in pipes, drums, tanks etc. It bonds well to a variety of materials like steel, aluminum, ceramics, wood, rubber etc. In conjunction with fibreglass top/cloth, it can also be used for repairs of high pressure pipelines. On with fibreglass top/cloth, it can also be used for repairs of high pressure pipelines.

## PROPERTIES

Hardness - Shore 'D' 80-82; Flexural strength - 195 Kg/cm<sup>2</sup>; Elongation at break -9%; Tensile strength - 125 Kg/cm<sup>2</sup>; Adhesive strength (tensile) - 145 Kg/cm<sup>2</sup>, (Shear) 135 Kg/cm<sup>2</sup>; Comparative track resistance - KB 550; dielectric strength (rapidly rising) - 14KV/mm, (20 second step) -8-9KV/mm. Setting time : Tack - free ¾ hours. Complete cure - 24 hours.

All properties tested Standard packings : 500 gms & Kg

## MEGA MONPLAST

MEGA Monoplast, available in tape & lump, is a single component, permanently elastic noncorrosive sealing compound with high insulating & weather-proofing properties.

MEGA MONOPLAST, in tape form can be very easily applied with minimum Skill & wastage. It is mouldable and adheres to most clean, dry surfaces including PVC, XLPE and Rubber cable insulation, Aluminum, Copper, Steel, Lead & Porcelain. It can easily be retained in place with the application of PVC non-adhesive tape, which is normally used for colour coding.

Its sealing & electrical properties make MEGA MONOPLAST the most economical, speedy & easy method for electrical insulation & weather-proofing applications. Once applied, MEGA MONOPLAST has excellent heat ageing properties too & can be used upto 800 C, continuously. It does not blister, harden or cure. There will also be no greening of copper surface under normal working temperature for long hours.

MEGA MONOPLAST is non-toxic, non-irritant & is absolutely harmless to the skin. It can be easily applied and moulded by hands. It is easily removable and reusable, as there is no deterioration of any properties during its working life.

## APPLICATION:

- When HV/XLPE cable are used in bitumen type transformer/switch gear boxes, the terminal & cable lugs can be insulated easily with Megamonoplast.
- It can also be used for, insulating bus bar joints, as well as, rounding off sharp edges on bus bar joints and bolted connections, to prevent corona discharges.
- Insulation and sealing connections between the terminal of transformer bushing and jumper Wires to prevent oxidation and corrosion. as a safety precaution.
- Insulating exposed electrical connections, as a safety precaution.
- Sealing cable entry portions of switchgear and motors, to prevent entry of vermin and rodents.

## PROPERTIES: (OF TAPE FORM & LUMP FORM)

- |   |   |
|---|---|
| • Color   | Dark Grey   |
| • Consistency   | Soft & Tacky  |
| • Penetration at 27 <sup>o</sup> C (as per IP 49/58)                      | 100-130   |
| • Softening Point   | Minimum 155 <sup>o</sup> C  |
| • Water absorption after 24 hours at 25 <sup>o</sup> C + 2 <sup>o</sup> C | 0.12% after 24 hours at room temperature.                                   |
| • Solubility  | Insoluble in water, mineral acids and alkalis, but slightly affected by it. |
| • Organic solvents and mineral oils                                       |   |
| • Dielectric Strength   | 9KV /mm   |

