

# Polyurethane Resin Compound



Famous for our Compounds, W T Henley has designed and manufactures a range of Polyurethane resin compounds, primarily intended as a filling medium for cable joints boxes and terminations. However, they are equally suited to any applications requiring water-tightness or mechanical protection and will adhere to paper or polymeric cables as well as copper and brass surfaces.

Our Compounds are simple to use and full mixing instructions are supplied with each kit.

All the necessary components are supplied with each kit, whether you choose our two-part or three-part mix. Sizes range from 0.35L up to 12.0L.

Simple and safe mixing of the hardener and base resin all takes place within a twin compartment foil pouch, which has a ruptureable membrane between the 2 halves. Final mixing of our three-part mix takes place in a bucket or an optional mixing bag.

### Two-part or three-part?

Our three-part version is our most cost-effective material, whilst the two-part compound has a lower viscosity, is designed with minimal packaging in mind and is ideally suited where quick jointing is required.

Domestic and Export grades are available.

- All Compounds suit Paper or Polymeric cables.
- All materials are supplied in one kit.
- No special mixing skills required.
- Hardener and resin in twin pouch with ruptureable membrane
- Immediate energising possible once compound has cured.
- Tough and resilient when set, providing mechanical protection and electrical insulation.



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## Typical Values

Value	Two-part	Three-part
Resin	Filled Polyol	Filled Polyol
Hardener	Polymeric Isocyanate	Polymeric Isocyanate
Secondary filler	N/A	High purity silica sand
Shelf Life: Domestic Grades	12 months	12 months
Export Grades	24 months	24 months
Exotherm	40°C rise from 20°C	30°C rise from 20°C
Shrinkage on curing	<4%	<2%
Volume resistivity	10 <sup>14</sup> cm	10 <sup>14</sup> cm
Power Factor	0.5	0.22
Dielectric strength	45kV/mm	13kV/mm
Thermal conductivity	0.25W/mK	0.6W/mK
Co-efficient of thermal expansion	4.8 x 10 <sup>-4</sup> /C	6 x 10 <sup>-4</sup> /C
Relative density	1.53	1.6-1.8
Continuous operating temperature	90°C	90°C
Impact strength (Charpy)	24kJ/m <sup>2</sup>	10kJ/m <sup>2</sup>
Pot life	10-25 Minutes*	10-20 Minutes*
Geltime	15-40 Minutes*	15-40 Minutes*

\* Value varies with grade.

For detailed information about a specific grade, please consult the individual datasheets, which are available upon request to our Head Office.

## Your Choice of Resin

### 1) Two-part systems

- A) Mk 4.2. Our lowest viscosity Compound, designed for use in temperate climates.
- B) Mk 4.3 Intermediate viscosity.
- C) Mk 4.5 Similar to Mk 4.3 but designed to be slow curing in high ambient temperatures.

### 2) Three-part systems

- A) Mk 6.0. A general purpose Compound for use at low voltage.
- B) Mk 6.3 A lower viscosity version of Mk6.0
- C) Mk 6 Gulf. Similar to Mk 6.3 but designed to be slow curing in high ambient temperatures.

WT Henley can configure resin kits to suit customer's individual requirements. A choice of mixing buckets is available as well as 'mix-in-bag' options. Other accessories such as disposable gloves and mixing paddles can be provided. Please contact our Head Office for further information.

Cable joint kits and connectors are also available – specific information sheets are available.

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**General Note** The equipment detailed in this publication should be installed by a suitably qualified person. WT Henley Limited reserves the right to make changes in product specification without notice or liability. All information is subject to WT Henley's own data and is considered accurate at time of going to print.

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