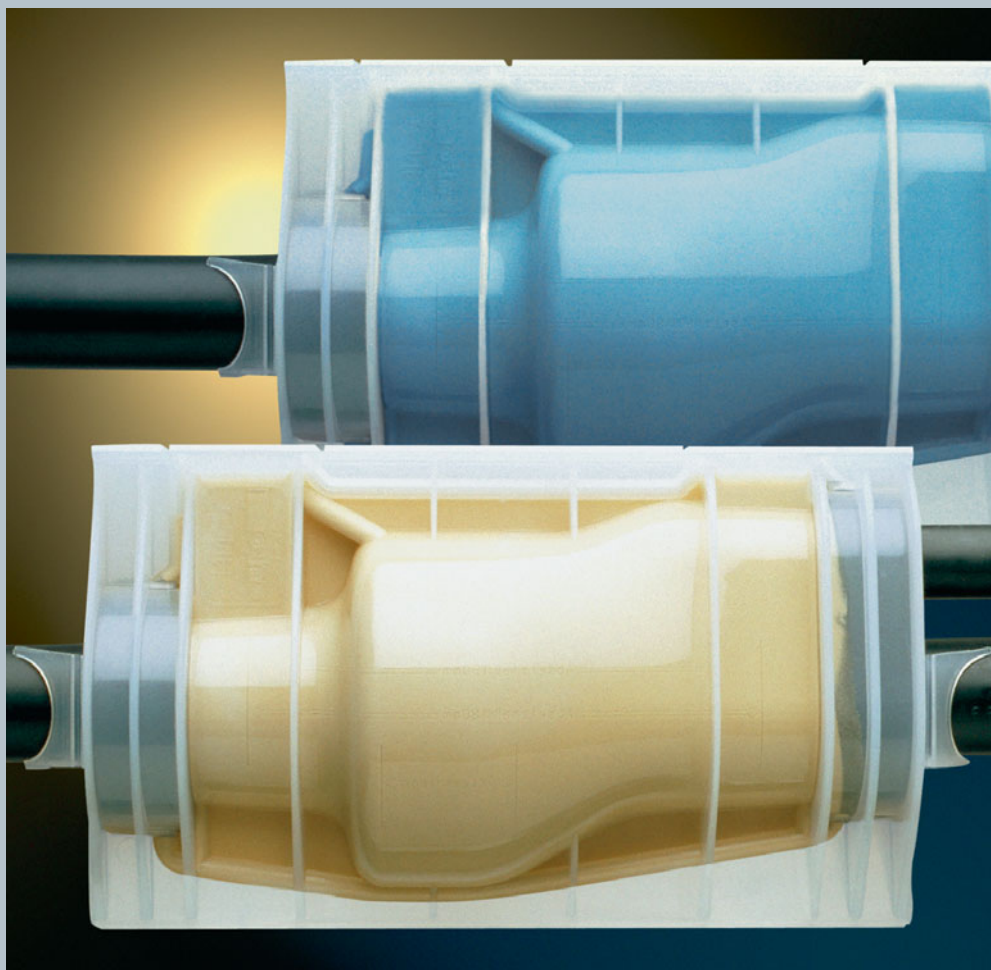


RAPID 3010 & 4100 – Casting materials for 1 kV cable joints

The function of a casting material is to insulate electrical connections in underground cables and prevent water ingress from outside the joint or from within the cable.

RAPID 3010 & 4100 are two-component, polyurethane-type casting materials type. RAPID 3010 is a hydrophobic, soft-elastic polyurethane resin, meeting the requirements of E DIN VDE 0291-2 06.97 and CENELEC HD 623.

RAPID 4100 is also a hydrophobic, soft-elastic polyurethane resin, which meets most of the requirements of E DIN VDE 0291-2 06.97, except that tear strengths are lower than specified in the standard. Nevertheless, RAPID 4100 meets the requirements of the joint performance standard CENELEC HD 623. Both systems have excellent insulation properties and are well suited for all cable jointing systems.



What are the RAPID 3010 & 4100 made of?

RAPID systems are polyurethane resins. They consist of part A – a mixture of different polyols, fillers and special additives – and part B – the hardener – which is MDI (diphenylmethane-4,4 diisocyanate). The isocyanate is classified as a hazardous material and is labelled “harmful”. Polyurethane systems generally generate less heat during reaction than epoxy resins.

How are RAPID 3010 & 4100 used?

Preparation of RAPID systems takes place immediately before casting. The two components are mixed either in a double chamber bag or in a can to start the cross-linking process.

Why are RAPID 3010 & 4100 unique?

Their outstanding properties are excellent hydrolytic stability and most impressive hydrophobic characteristics. Foaming problems during processing are avoided, even when casting in a relatively high humidity environment. This ensures long-term stability under service conditions. Furthermore the RAPID systems have an excellent curing profile at various temperatures, which allows easy handling and curing, summer and winter alike.

Permanent elasticity ensures long-term stability of the inherent movements of the cable. As a result of the cross-linking reactions, the resin bonds strongly to functional parts, thus avoiding the creation of voids between hardened resin and cable insulation.

Where are RAPID 3010 & 4100 used?

RAPID 3010 & 4100 are suited for use in all cable joint systems up to 1 kV. They are suitable for XLPE, PE, PVC and paper-insulated cables. RAPID 3010 & 4100 are available in double chamber bags and in cans of different sizes.



Technical data

	RAPID 3010	RAPID 4100
Density	component A (resin) 1.22 g/cm ³ component B (hardener) 1.24 g/cm ³	component A (resin) 1.26 g/cm ³ component B (hardener) 1.24 g/cm ³
Viscosity at 20°C	component A 3000 mPa·s component B 300 mPa·s	component A 3000 mPa·s component B 300 mPa·s
Pot life: at 5°C	~ 26 min	~ 25 min
at 23°C	~ 13 min	~ 14 min
at 35°C	~ 9 min	~ 10 min
Maximum reaction temperature (300 ml)	80°C	75°C
Shore hardness D	44	32
Tensile strength	8 MPa	5 MPa
Elongation to break	45%	45%
Minimum installation/storage temperature	5°C	5°C
Shelf life	2 years at 23°C	2 years at 23°C
Colour	blue	brown

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. ALR, AMP, AXICOM, B&H, Bowthorpe EMP, Dorman Smith, Dulmison, Hellstern, La Prairie, Morlynn, Raychem, and SIMEL are trademarks.



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Tyco Electronics Raychem GmbH, Energy Division
Finsinger Feld 1, 85521 Ottobrunn/Munich, Germany
Phone: +49 89 6089-0, Fax: +49 89 6096345