

**S9 SURVEY
REPORT**

Group 9

Insulating and encapsulating varnishes
colourless and coloured transparent



This survey report gives a comprehensive overview of product group 9. For further information please refer to the technical reports (TR), in which the mentioned products are described in detail.

For more extensive advice, our application technology department (ATD) is at your disposal at any time.

The first column of this survey corresponds to the order in which our technical reports (TR) are filed in the report manual and/or supplements and new technical reports are to be added. Thus this survey also serves as a table of contents of product group 9.

The products mentioned in this survey do not contain substances listed in the RoHS directive 2002/95/EC, the EU End-of-Life Vehicle directive 2000/53/EC ("lead-free regulation") and the WEEE directive 2002/96/EC. Detailed information on these directives that restrict or prohibit the use of certain hazardous substances can be accessed in the "Service" section on our website www.peters.de – "Directives/restrictions of substances".

1. Insulating and encapsulating varnishes, colourless and coloured transparent

1.1 General characteristics

- 1- and 2-pack insulating and encapsulating varnishes for electrical engineering and general electrotechnology
- for the insulation of impregnated coils and windings
- good protection against corrosion, also for assembled printed circuit boards
- good resistance to moisture, in particular condensation, numerous chemicals, grease and oils
- very good dielectric properties
- no risk of incipient dissolution of enamelled wires
- good flowability
- already dry at room temperature; application of heat reduces the drying times.

1.2 Product-specific characteristics

| Product (series) | Special properties |
|---|--|
| 1-pack insulating varnishes of the series US 9202 US 9202, colourless US 9202 LB, colourless US 9202 LB-RI, colourless US 9212, yellow transparent | <ul style="list-style-type: none"> • base: modified polyester resins • application: brushing, spraying, dipping • due to the short drying time, coated parts can be handled quickly (tack-free after approx. 20 min); however, max. final properties are only achieved after oxidative drying is completed which takes at least 96 h • also suitable for impregnating laminated paper and pressboard objects and for coating the cut edges of layered insulating materials • US 9202 LB and US 9202 LB-RI are solderable (Index LB) at higher soldering iron temperatures from 360 to 380 °C [680 - 716 °F] so that the varnish does not have to be removed prior to soldering • US 9202 LB-RI contains a rust inhibitor (Index RI) so that this adjustment boasts particularly good protection against airborne rust, e.g. on layered metal transformer plates • thermal class B = 130 °C [266 °F] based on DIN IEC 60085 |
| 2-pack insulating varnish US 9400 , colourless transparent | <ul style="list-style-type: none"> • base: polyurethane (PUR; high-grade DD varnish) • application: brushing, spraying • long pot life of approx. 15 h, cures at room temperature • excellent resistance to moisture and condensation, tropical climates, numerous chemicals and oils • very good adhesion to numerous substrates, also to light and non-ferrous metals • for the insulation of impregnated coils and windings that are subject to severe climatic/environmental conditions, due to its good resistance to oils can also be used as an adhesive/insulating varnish in transformer construction • suitable as a conformal coating for high-grade assembled printed circuit boards and electronic components • can be soldered through for repair purposes • thermal class F = 155 °C [311 °F] based on DIN IEC 60085 |

Any questions?

We would be pleased to offer you advice and assistance in solving your problems. Free samples and technical literature are available upon request.

The above information as well as advice given by our Application Technology Department whether in verbal or written form or during product evaluations is provided to the best of our knowledge, but must be regarded as non-binding recommendations, also with respect to possible third-party proprietary rights.

The products are exclusively intended for the applications indicated in the corresponding technical data sheets.

The advisory service does not exempt you from performing your own assessments, in particular of our material safety data sheets and technical information sheets, and of our products as regards their suitability for the applications intended.

The application, use and processing of our products and of the products manufactured by you based on the advice given by our Application Technology Department are beyond our control and thus entirely your responsibility. The sale of our products is effected in accordance with our current terms of sale and delivery.

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