
Damisol® 3500 LoV 1-component-resin

Damisol® 3500 LoV is a Freon resistant heat curing epoxy resin with low viscosity.

Attributes

Damisol® 3500 LoV has the following properties:

- low viscosity
- Freon resistant
- very low VOC emission
- suitable for dipping- and vacuum-impregnating processes
- excellent long-term heat resistance

Application

Damisol® 3500 LoV is mainly used for the impregnation of medium and low voltage industrial motors. Due to the very good electrical, mechanical and thermal properties of Damisol® 3500 LoV it is also suitable for traction motors and transformers.

Standards

- Thermal class H (UL 1446) / E98511

Delivery forms

Damisol® 3500 LoV is available in:

- 20 kg cans
- 200 kg drums
- 1000 kg container

Storage

Damisol® 3500 LoV can be stored 12 months in sealed containers at room temperature (max. 25 °C). Higher temperature can be reached during short period of time. If storing the resin in a supply tank, dry air or "Nitrogen" is recommended. Protect from light, sun and heat.

Hardening

The curing time is 2.5 h at 170 °C. The exact curing time depends on different parameters.

Protection

Please avoid contact of Damisol® 3500 LoV with skin. Use safety gloves and glasses.

Product datasheet

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Please refer to the material safety data sheet for complete information.

Processing

The most commonly used processes are atmospheric impregnation and vacuum pressure impregnation (VPI). However, the good stability of the resin also allows processing at elevated temperatures (dipping, rolling and trickling processes). With the "hot dipping process", the engine can be heated up to 90 °C before impregnation.

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.

Updated 06/21

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| Mechanical | Unit of measure | Condition | Values | Test method |
|------------------------------|-----------------|--------------------|--------|-------------------|
| Gel time | min | at 130 °C | 12±3 | gel norm 20g |
| Glass transition temperature | °C | | 122 | IEC 61006 |
| Water absorption | % | after 24h at 23 °C | ≤ 0.3 | ISO 62 (method 1) |
| Bond strength | daN | at 180 °C | 8.3 | IEC 1033 |

| Electrical | Unit of measure | Condition | Values | Test method |
|--|-----------------|---------------------|--------|--------------------|
| Dielectric strength at 23 °C and 50 % r.h. | kV/mm | | 159 | DIN 46448/VDE 0360 |
| Dielectric strength at 23 °C after 96 h storage at 92 % r.h. | kV/mm | | 143 | DIN 46448/VDE 0360 |
| Dielectric loss factor | % | at 25 °C tan delta | < 1 | IEC 60250 |
| Dielectric loss factor | % | at 105 °C tan delta | ≤ 2 | IEC 60250 |
| Dielectric loss factor | % | 130 °C tan delta | ≤ 5.5 | IEC 60250 |

| Chemical | Unit of measure | Condition | Values | test method |
|----------|-----------------|-----------|--------|-------------|
|----------|-----------------|-----------|--------|-------------|

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| Chemical | Unit of measure | Condition | Values | test method |
|------------|-----------------|--------------------|--------|-------------|
| Resistance | % | transformer oil | < 0.1 | ISO 175 |
| Resistance | % | chemicals HCl 10 % | ≤ 0.14 | ISO 175 |

| Liquid phase | Unit of measure | Condition | Values | test method |
|----------------------|-----------------|-----------|-----------|-------------|
| Colour | | | yellowish | |
| Flashpoint | °C | | ≥100 | ISO 3679 |
| Viscosity | mPas | at 25 °C | 600 ± 200 | ISO 2884-1 |
| VOC acc. 31. BlmSchV | % | | < 2 | IEC 60455-3 |

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