



产 品 说 明 书
Product Instruction

产品名称：
耐高温自干绝缘漆

Product Name:
High-Temperature Air-Drying
Insulating Varnish

产品型号：
E57-180

Product Model:
E57-180

厂商名称：珠海长先新材料科技股份有限公司
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E57-180 耐高温自干绝缘漆

E57-180 High-Temperature Air-Drying Insulating Varnish

产品描述:

Product Overview:

E57-180 是一款改性耐高温聚酯绝缘漆，耐热等级为 H 级（180℃及以上），可快速固化。

E57-180 is a modified high-temperature-resistant polyester insulating varnish with a Class H rating (180°C and above) and rapid curing performance.

产品特性:

Features:

- 对变压器部件粘附力高，可有效降低线圈的电磁振动和电噪声。
- 可协调金属体与绝缘体之间的热膨胀差异，降低线圈损坏。
- 耐-40℃~180℃高低温，膜层具有一定柔软性和优异润湿性；符合 RoHS、REACH，无卤、无苯。
- Provides strong adhesion to transformer components and helps reduce coil electromagnetic vibration and electrical noise.
- Accommodates thermal-expansion differences between metal and insulation, reducing coil damage.
- Resists temperatures from -40°C to 180°C; the film is flexible and wets well. RoHS/REACH compliant, halogen-free and benzene-free.

产品应用:

Product Applications:

- 适用于工作温度较高的中型至大型设备线圈处理。
- 适用于大型变压器、大型发电机、新能源汽车电机及马达定子线圈。
- Suitable for coil treatment in medium to large equipment operating at elevated temperatures.
- Suitable for large transformers, large generators, new-energy vehicle motors and motor stator coils.

性能指标:

Performance Specifications:

序号 No.	指标名称 Property	试验条件 Test Conditions	指标值 Specification
1	耐热等级 Thermal class	— —	H 级（180℃） H Class（180℃）
2	粘度 Viscosity	25℃，涂四杯 25℃, Tu-4 cup	20±5.0 s
3	比重 Specific gravity	25℃	0.975±0.03
4	不挥发份 Non-volatile content	105℃/3h	46±3.0%
5	清漆外观 Varnish appearance	25℃，目测 25℃, visual	棕色半透明液体 Brown semi-transparent liquid

序号 No.	指标名称 Property	试验条件 Test Conditions	指标值 Specification
6	膜层外观 Film appearance	25°C, 目测 25°C, visual	黄色透明, 平滑 Yellow transparent, smooth
7	表面干燥时间 Surface drying time	110°C	≤5 min
8	内部干燥时间 Through-drying time	110°C	≤4 h
9	表干时间 Surface drying time	25°C	≤20 min
10	实干时间 Through-drying time	25°C	7 天 7 days
11	体积电阻率 Volume resistivity	常态 As received	$8.5 \times 10^{13} \Omega \cdot m$
12	体积电阻率 Volume resistivity	浸水 24h 后 After 24 h water immersion	$2.2 \times 10^{13} \Omega \cdot m$
13	绝缘强度 Dielectric strength	常态 As received	132 kV/mm
14	绝缘强度 Dielectric strength	浸水 24h 后 After 24 h water immersion	116 kV/mm
15	绝缘破坏电压 Dielectric breakdown voltage	双绞线 (TP), $\phi=1.0\text{mm}$, AIW Twisted pair (TP), $\phi=1.0 \text{ mm}$, AIW	16 kV
16	涂膜厚度 Coating thickness	—	≥0.05 mm
17	稀释剂 Thinner	—	X-86 系列、X-12 系列 X-86 Series or X-12 Series
18	有效期 Shelf life	40°C	6 个月 6 months

注意事项:

Precautions:

实际应用时客户请根据含浸的变压器的形状、大小不同, 通过实验确定所用的含浸的时间、固化时间等生产条件。

In actual application, please determine the impregnation time, curing time and other process conditions through testing, according to the different shapes and sizes of the impregnated transformers.

包装、储运及保质期:

Packaging, Storage, Transportation and Shelf Life:

● 包装:

20L/桶、200L/桶

● 储运:

请远离火源、热源, 按法规搬运。

本产品存储和使用过程中, 禁止太阳光、紫外光照射漆液, 存放于阴凉通风处, 存储温度应低于 40°C。

使用过程中产品不宜长时间密闭静置, 适当流动搅拌有利于延长存储时间。

本产品存放过程中, 粘度会发生轻微增长, 使用时用专用稀释剂兑稀到使用粘度, 使用即可。

- 保质期:

密闭保存, 存储温度应低于 40°C, 保质期为 6 个月

- Packaging:

20 L/pail; 200 L/drum.

- Storage and Transportation:

Keep away from ignition sources and heat. Handle and transport in accordance with applicable regulations.

Protect the varnish from sunlight and ultraviolet light during storage and use. Store in a cool, well-ventilated area below 40°C.

During use, avoid leaving the product sealed and undisturbed for prolonged periods. Gentle circulation or stirring helps extend storage life.

Viscosity may increase slightly during storage. Before use, adjust to the required application viscosity with the designated thinner.

- Shelf Life:

Six months when stored in sealed containers below 40°C.

安全操作须知:

Safe Handling Instructions:

安全使用须知不在此列出, 操作前请阅读本产品的化学品安全说明书 (MSDS), 可从本公司业务专员处获得。

Safety instructions are not listed in this document. Before operation, please read the Material Safety Data Sheet (MSDS) of this product, which can be obtained from our sales representative.

温馨提示:

Please Note:

- 由于我们的产品会持续优化和改进, 本手册中的相关信息可能会根据实际情况进行调整, 不另行通知。如需获取最新版本或了解更多信息, 欢迎随时联系我们的销售团队。

- 本公司严格按相关产品标准控制质量和提供产品 (特制品按双方约定)。产品应用条件的多样性和多变性, 且均非我们所能控制, 因此用户应对本产品之说明书与施工参考工艺所介绍的信息和产品预先进行试验和评估, 自行确定对其特定用途的适用性。

- As our products are continuously improved, the information in this manual may be updated from time to time without prior notice. Please feel free to contact our sales team for the latest version.

- Do not mix this product with other products.

- We strictly control product quality and supply products in accordance with applicable product standards. Custom products are supplied according to mutually agreed specifications. Application conditions vary and are beyond our control. Users should therefore test and evaluate the product and the information provided in this manual and the recommended application procedures to determine suitability for their specific use.