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技 术 说 明 书

Technical Data Sheet

产品名称: 灌封胶 **FD503-TG301 A/B**

Product Name: Potting Compound FD503-TG301 A/B

1、产品特性 Product Characteristics

FD503-TG301 A/B 是一种中等粘度双组份加成型高导热灌封胶，加热固化，具有温度越高固化越快的特点。本品在固化反应中不产生任何副产物，可以应用于 PC(Poly-carbonate)、PP、ABS、PVC等材料及金属类的表面，可在 -40℃～200℃ 环境下使用。完全符合欧盟 ROHS、REACH 指令要求。

FD503-TG301 A/B is a two-component, addition-curing, high thermal conductivity potting compound with medium viscosity. It cures upon heating, and features faster curing at higher temperatures. No by-products are generated during the curing reaction. This product can be applied to materials including PC (polycarbonate), PP, ABS, PVC, as well as metal surfaces, and can be used in environments ranging from -40°C to 200°C. It fully complies with EU RoHS and REACH regulations.

2、典型用途 Typical Applications

电感灌封，如有其它应用领域需求，请咨询我司技术人员。

Suitable for inductor potting. For other application requirements, please contact our technical team.

3、技术参数 Technical Parameters

性能指标 Performance Indexes		A组分 Component A	B组分 Component B	检验标准 Inspection Standard
固 化 前 Before curing	外观 Appearance	灰色流体 Grey fluid	白色流体 White fluid	Q/GZJTHG 42-2022
	粘度（cps） Viscosity (cps)	5000-7000	6000-8000	GB/T 10247
	混合比例A: B（重量比） Mixing ratio A: B (by weight)	1: 1		Q/GZJTHG 42-2022
	混合后粘度（cps） Viscosity after mixing (cps)	5500-7500		GB/T 10247
	操作时间（min） Working Time (min)	≥40		Q/GZJTHG 42-2022
	80℃固化时间（min） Curing time at 80°C (min)	≤30		Q/GZJTHG 42-2022
	固化时间（h） Curing time (h)	≤3		Q/GZJTHG 42-2022
固 化 后 After Curing	硬度（shore 00） Hardness (shore 00)	45-65		GB/T 531.2
	导热系数（W/m·K） Thermal conductivity coefficient (W/m·K)	3.0±0.3		ASTM D5470
	介电强度（kV/mm） Dielectric strength (kV/mm)	≥8		GB/T 1695
	体积电阻率（Ω·cm） Volume Resistivity (Ω·cm)	≥1.0×10 ¹²		12 GB/T 1692
	密度（g/cm ³ ） Density (g/cm ³)	3.0±0.1		GB/T 13354
	耐温范围 Temperature resistance range	-40°C-200°C		Q/ZS 1-2016
	阻燃等级 Flame retardant grade	V-0		UL94

以上固化前性能数据均在当日生产产品室温条件下所测，机械性能及电性能数据均在试样完全固化后所测。本公司对测试条件不同或产品改进造成的数据不同不承担相关责任。

All the above properties before curing are measured at room temperature on the day of production. Mechanical and electrical properties are tested after specimens are fully cured. Our company shall not be liable for any data variations caused by different test conditions or product improvements.

4、使用工艺 **Application Instructions**

- 混合前：首先把 A 组分和 B 组分在各自的容器内充分搅拌均匀。
Before mixing: Stir Component A and Component B thoroughly in their own containers separately.
- 混合时：应遵守 A 组分 : B 组分 = 1 : 1 的重量比，并搅拌均匀。
During mixing: Mix Component A and Component B at a weight ratio of 1:1, and stir thoroughly.
- 排泡：胶料混合后应真空排泡 1~3 min。
Degassing: After mixing, degas the adhesive under vacuum for 1 to 3 minutes.
- 灌封：混合好的胶料应尽快灌注到被灌产品中，以免后期胶料增稠而流动性不好。
Potting: Pour the mixed compound into the assembly as soon as possible to prevent thickening and poor flowability.
- 固化：加温固化。温度越高，固化速度越快。
Curing: Cure by heating. Higher temperature results in faster curing.

5、注意事项 **Precautions**

- 胶料应在干燥室温环境下密封贮存，混合好的胶料应尽快用完，避免造成浪费。
Store the compound sealed in a dry, room-temperature environment. Use the mixed compound as soon as possible to avoid waste.
- 本品属非危险品，但勿入口和眼。
This product is non-hazardous, but avoid contact with mouth and eyes.
- 本品无毒，具有良好的生理惰性，对皮肤无刺激和伤害。产品不含有易燃易爆成份，不会引发火灾及爆炸事故，对运输无特殊要求。
This product is non-toxic with good physiological inertness, and is non-irritating and harmless to the skin. It contains no flammable or explosive components, will not cause fire or explosion, and has no special transportation requirements.
- 存放一段时间后，胶会有所分层。请搅拌均匀后使用，不影响性能。
The compound may separate after prolonged storage. Stir thoroughly before use; this will not affect its performance.
- 以下物质可能会阻碍本产品的固化，或发生不固化现象，所以，最好在进行简易实验验证后应用，必要时需要清洗应用部位。
The following substances may inhibit or prevent the curing of this product. It is

recommended to perform a small test before application and clean the application area if necessary.

- ◆ 不完全固化的缩合型硅酮胶。
Incompletely cured condensation silicone adhesive.
- ◆ 胺固化型环氧树脂。
Amine-cured epoxy resin.
- ◆ 白蜡焊接处或松香焊点。
Soldered joints with white wax or rosin.

6、包装规格及贮存及运输 **Packaging, Storage and Transportation**

- A 剂 10 kg/桶、25 kg/桶；B 剂 10 kg/桶、25 kg/桶。
Component A: 10 kg/drum, 25 kg/drum; Component B: 10 kg/drum, 25 kg/drum.
- 本产品的贮存期为 360 天（25℃ 以下），超过保存期限的产品应确认无异常后方可使用。
Shelf life: 360 days (below 25℃). Products beyond the shelf life should be checked for abnormalities before use.
- 此类产品属于非危险品，可按一般化学品运输。
This product is non-hazardous and can be transported as general chemicals.

7、建议和声明 **Recommendations and Disclaimer**

建议用户在正式使用本产品之前先做适用性试验。由于实际应用的多样性，我公司不担保特定条件下使用我司产品出现的问题，不承担任何直接、间接或意外损失的责任，用户在使用过程遇到什么问题，可联系我公司售后服务部，我们将竭力为您提供帮助。

It is recommended that users conduct an applicability test before formal use of this product. Due to the diversity of practical applications, our company shall not be liable for any problems arising from the use of our products under specific conditions, nor for any direct, indirect or incidental damages. Should you encounter any problems during use, please contact our After-sales Service Department, and we will endeavor to assist you.