

# TECHNICAL DATA SHEET

Version 1.1  
Revision Date 2023/9



## White Epoxy Molding Compound 白色环氧塑封料 TECORÉ® GT-700WO

**TECORÉ®GT-700WO** is a high-performance white epoxy molding compound, specifically developed for DFN/QFN encapsulation. GT-700WO enables the sawing type QFN/DFN package low warpage performance with the minimized CTE (Coefficient of Thermal Expansion) mismatch to silicon chip and copper lead-frame. Rely on its high adhesion to metal lead frame and silicon chip, and low water absorption, GT-700WO provides the package high reliability to MSL2~MSL1@260degC. It maintains white color and high reflectance, with endurance to high temperature (i.e. 260degC reflow), UV and oxidation.

**\*Recommend maintaining the mold dies with TECORE® C60/W80 cleaning/conditioning rubber sheets and AZ-808 wax compound. (Please consult with the local sales office for the technical data of TECORE® mold cleaning rubber products.)**

德高化成TECORÉ®GT-700WO是用于DPN/QFN封装的白色环氧塑封料。GT-700WO具有与硅芯片和铜框架材料的最小CTE(线性膨胀系数)差异,从而保证QFN/DFN(尤其是sawing-type)的低翘曲。GT-700WO对硅、金属材料的粘接力强,吸水率低,可以帮助器件实现最高MSL2~MSL1的湿敏等级。同时,它具有极强的耐候性,可以耐受高温(如260摄氏度回流焊)、紫外线、氧化,保持外观颜色不变,并维持高反射率。推荐使用TECORÉ® C60和W80清模和润模片或者AZ-808润模树脂对半导体塑封模具进行清洁和维护。(请向德高化成当地的销售代表处和经销商索取TECORÉ®清模产品的TDS。)

### MAIN FEATURES 产品特性

- **Low warpage for sawing QFN/DFN**  
Sawing-type QFN/DFN的低翘曲
- **High reliability up to MSL2~1@260degC**  
实现MSL2~1@260°C湿敏等级
- **High reflectance and whiteness with anti-oxidation by heat**  
耐热、耐氧化,保持高反射率和白色外观

### 1. TYPICAL PROPERTIES主要性能

Item 项目	Unit 单位	Value 特征值
Appearance 外观	-	White, tablet 白色, 圆柱体
Specific Gravity 比重	-	2.18
Spiral Flow 流动长度	inch	40
Gel Time 凝胶化时间	sec	32

# TECHNICAL DATA SHEET

Version 1.1

Revision Date 2023/9



Hardness 热硬度@175°C*120s	Shore D	76	
Glass Transition Temperature 玻璃化温度(DSC)	°C	160	
Coefficient of Linear Thermal Expansion 线性膨胀系数	Alpha 1 Alpha 2	ppm/°C ppm/°C	13 45
Flexural Strength 弹性强度	MPa	114	
Flexural Modulus 弹性模量	GPa	22	
Initial Reflectivity 初始反射率-460nm	%	87	
Initial Reflectivity 初始反射率-700nm	%	92	
Molding shrinkage 模塑收缩率	%	0.15	

## 2. HOW TO USE使用方法

Recommended Molding Parameters 推荐的塑封参数

Molding Condition 塑封条件	Unit 单位	Parameter 参数
Preheating Time 预热时间	sec	0-6
Mold Temperature 模具温度	°C	170-180
Transfer Pressure 转进压力	kgf/cm <sup>2</sup>	40-90
Transfer Time 转进时间	sec	10-14
Curing Time 固化时间	min	2~4
Post Molding Cure Condition 后固化条件(175°C)	hour	4~6

**\*Notes: Please ask the local sales office for help, in case of problems during molding process.**

如果遇到封装工程的问题，请与德高化成当地代表处或经销商联络以取得帮助。

## 3. PACKING包装方式

The epoxy molding compound is sealed with double PE bags, in quantity of 10Kg in a carton.  
环氧树脂塑封料成品用双层PE袋密封，装入纸箱，每箱10公斤。

## 4. STORAGE储存注意事项

The users are suggested to store and use the products by following the recommended conditions as below  
建议顾客按照如下推荐的条件存储和使用本产品：

# TECHNICAL DATA SHEET

Version 1.1

Revision Date 2023/9



4.1 Please pay attention to keep the product moisture-free, and the humidity may cause curing failures or electric failures of compounds.

注意保证产品一直处于干燥的环境中，湿气可能会导致产品固化问题或电性能失效。

4.2 We recommend the product to be transported at or below 10°C.

Keep at temperature not exceeding 5°C, and thaw 16-24 hours at 20-25°C with sealed package before using until product temperature reaches room temperature. And the cold surface will absorb humidity in the air.

推荐运输温度为10°C以下。长期保存应在5°C以下，使用时保证密封状态在20-25°C下回温16-24小时，直至达到室温。产品表面低于室温会导致空气中的水汽凝结并聚集在环氧树脂塑封料表面。

4.3 Keep away from sources of heat, such as molding dies, lead-frame preheating panels. The unlimited heat absorption will cause invalidations of epoxy molding compounds.

远离塑封模具、预热台等热源。不加控制的受热会导致环氧塑封料提早过期失效。

4.4 Shelf life: If stored under proper conditions, product retains its performance and properties for 12 months from manufactured day.

储存期限：在适宜的储存条件下储存时间均为12个月。

4.5 Pot life: 72 hours unpacked at room temperature after taking out from cold room(including the thawing time).

使用期限：使用剩余的产品可以密封在双层聚乙烯塑料袋中，再次放入冷库储存。累计的使用时间和回温时间不超过72小时。

**Note:** Above the technical information and data should be considered representative or typical only and should not be used for specification purposes.

注意：以上所列技术信息仅为代表性数据，不能代替技术规格书。

## TECORÉ SYNCHEM, INC.

天津德高化成新材料股份有限公司

BUILDING 13, MARINE INNOVATION PARK, NO.4668 XINBEI ROAD, BINHAI HI-TECH DEVELOPMENT AREA, TIANJIN, CHINA 300451

HOTLINE: **(+86)400-1-831-756**

MAIL TO: [sales\\_service@tecore-synchem.com](mailto:sales_service@tecore-synchem.com)

[www.tecore-synchem.com](http://www.tecore-synchem.com)