

U-Cure 9304

聚氨酯丙烯酸酯 / Polyurethane Acrylate

Difunctional Polyurethane Acrylate Resin

KASTER

Innovation in Polymer Chemistry
昆山卡斯特高分子材料有限公司

技术资料表 Technical Data Sheet (TDS)

1 产品介绍 Product Introduction

U-Cure 9304 是一款二官能团聚氨酯丙烯酸酯树脂。它在 U-Cure 9300 系列的基础上进行了针对性的分子结构调整，旨在提供更均衡的附着力、柔韧性以及更快的反应活性。该产品具有良好的成膜性和极佳的耐水煮性能，特别适用于高性能光固化涂料与油墨体系。

U-Cure 9304 is a difunctional polyurethane acrylate resin. Based on the 9300 series, it is engineered for balanced adhesion, flexibility, and enhanced reactivity, making it ideal for high-performance UV coatings and inks.

2 物理及力学特性 Physical & Mechanical Properties

性能参数 Properties	典型指标 Typical Value	测试标准 Standard
外观 Appearance	透明澄清液体 / Clear Liquid	Visual
粘度 Viscosity (cps @ 60°C)	50,000 - 70,000	ASTM D2196
固含量 Solid Content (%)	100%	GB/T 1725
官能度 Functionality	2	Theoretical
NCO 残存 (%)	< 0.2	Titration
邵氏硬度 Shore Hardness	35A	ASTM D2240
拉伸强度 Tensile Strength	2 MPa	ASTM D638
断裂伸长率 Elongation	180%	ASTM D638

3 核心特性 Key Product Features

- 优异的柔韧性 (Superior Flexibility)**
分子链中含有长链段，固化后涂膜具有极高的延伸率和抗冲击性。
The molecular structure provides high elongation and impact resistance.
- 卓越的附着力 (Excellent Adhesion)**
在 ABS、PC、PET 以及金属基材上展现出出色的结合力。
Outstanding adhesion on ABS, PC, PET, and metallic substrates.
- 耐水煮性能好 (Good Boiling Water Resistance)**
在水煮测试后，涂膜能保持良好的表面光泽度和附着力。
The coating maintains gloss and adhesion after boiling water tests.

4 建议应用 Product Applications

- **真空电镀底漆 (Vacuum Metallization Basecoat)**

为金属沉积层提供平整且强韧的底部支撑。

Provides a smooth and tough foundation for metal deposition layers.

- **软质塑胶漆 (Soft Plastic Coatings)**

适用于皮革、PVC 或 TPU 等软质基材的表面涂装。

Suitable for surface coatings on soft substrates like leather, PVC, or TPU.

5 常见问题解答 Q&A

Q: 树脂粘度过高，如何调整施工性？ (How to handle high viscosity?)

A: 树脂粘度较高时，可以通过 50 – 80°C 加温烘烤降低其稠度，之后根据需要用单体或有机溶剂进行稀释后使用。

The resin can be heated at 50 – 80°C to reduce consistency, then diluted with monomers or solvents.

6 储存与安全 Storage and Safety

- **储存 (Storage):** 密封避光存放于阴凉干燥处，建议储存温度为 -10°C 至 35°C。保质期为 12 个月。
Store sealed and protected from light in a cool, dry place. Recommended temperature: -10°C to 35°C. Shelf life: 12 months.

- **安全 (Safety):** 对眼睛有刺激性；对水生生物有毒。操作请佩戴个人防护装备，详见 SDS。
Irritating to eyes; toxic to aquatic life. Wear personal protective equipment. Refer to SDS for details.

联系方式 Contact Information

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