

U-Cure 9581

低粘度二官聚氨酯丙烯酸酯 / Aliphatic Urethane Acrylate

Low Viscosity Difunctional Urethane Acrylate UV Resin

KAISTER

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 9581 是一种低粘度、脂肪族二官能聚氨酯丙烯酸酯 UV 树脂。该产品旨在平衡加工过程中的流动性与固化膜层的力学性能，特别适用于要求高耐候性、坚韧性及精密涂布的应用场景。

U-Cure 9581 is a low-viscosity, aliphatic difunctional urethane acrylate UV resin. It is designed to balance processability with the mechanical properties of the cured film, making it ideal for applications requiring high weatherability, toughness, and precision coating.

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 @ 25°C)	5,000 - 15,000	ASTM D2196
固含量 Solid Content (%)	100%	GB/T 1725
官能度 Functionality	2	Theoretical
NCO 残存 NCO Content (%)	< 0.2%	Titration
绍氏硬度 Shore Hardness	52D	ASTM D2240
拉伸强度 Tensile Strength	10 MPa	ASTM D638
断裂伸长率 Elongation	37%	ASTM D638

3 核心特性 Key Product Features

• 低粘度 (Low Viscosity)

极佳的稀释性，能够有效降低配方整体粘度，减少稀释单体的使用量。

Excellent thinning effect, significantly reducing overall formula viscosity and the need for reactive diluents.

• 高坚韧性 (High Toughness)

固化后膜层表现出优异的柔韧性与结构强度的平衡，不易脆裂。

The cured film exhibits an outstanding balance between flexibility and structural strength, preventing brittleness.

• 卓越耐候性 (Superior Weatherability)

脂肪族分子结构赋予其极佳的抗黄变性能，适合长期户外使用。

Aliphatic molecular structure provides excellent non-yellowing properties, suitable for long-term outdoor use.

4 建议应用 Product Applications

- **UV 喷墨 (UV Inkjet)**

因其极低粘度，适用于精密喷墨设备，确保出墨顺畅。

Due to its low viscosity, it is suitable for precision inkjet equipment to ensure stable jetting.

- **UV 油墨与涂料 (UV Inks & Coatings)**

用于塑胶、金属及木材涂料，提供良好的附着力与耐候性。

Used in coatings for plastics, metals, and wood, providing good adhesion and weather resistance.

5 常见问题解答 Q&A

Q: U-Cure 9581 是否适合户外长期使用？ (Is U-Cure 9581 suitable for long-term outdoor use?)

A: 是的。由于其采用脂肪族聚氨酯结构，具有极佳的耐紫外线性能，不易发生黄变或降解。

Yes. Its aliphatic urethane structure provides excellent UV resistance, ensuring it is highly resistant to yellowing and degradation.

6 储存与安全 Storage and Safety

- **储存 (Storage):** 存放在密封容器中，避光置于阴凉干燥环境 (-10°C 至 35°C)。保质期 12 个月。

Store in sealed containers away from light in a cool, dry environment (-10°C to 35°C). Shelf life: 12 months.

- **包装 (Packaging):** 标准包装为 200kg/桶。

Standard packaging is 200kg per drum.

- **安全 (Safety):** 对眼睛有刺激性。操作时请佩戴防护用具。详细信息请参阅安全数据表 (SDS)。

Irritating to eyes. Wear protective gear during handling. Refer to the Safety Data Sheet (SDS) for details.

联系方式 Contact Information

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