

U-Cure 9501

二官能团聚氨酯丙烯酸酯 / Difunctional Urethane Acrylate

脂肪族聚氨酯丙烯酸酯树脂 / Aliphatic Urethane Acrylate Resin

技术资料表 Technical Data Sheet (TDS)

1 产品介绍 Product Introduction

U-Cure 9501 是一款高性能的二官能团脂肪族聚氨酯丙烯酸酯树脂。其设计旨在为光固化体系提供卓越的附着力和坚韧的力学性能。该产品具有良好的单体相容性，在多种塑料及涂层基材上展现出优异的平衡性。

U-Cure 9501 is a high-performance difunctional aliphatic urethane acrylate resin designed to provide exceptional adhesion and tough mechanical properties for UV-curable systems.

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 / Transparent Liquid	Visual
粘度 Viscosity (cps @ 60°C)	10,000 - 20,000	ASTM D2196
固含量 Solid Content (%)	100%	GB/T 1725
官能度 Functionality	2	Theoretical
NCO 残存 (%)	< 0.2	Internal Method
邵氏硬度 Shore Hardness	86A	ASTM D2240
拉伸强度 Tensile Strength (MPa)	9.6	ASTM D638
断裂伸长率 Elongation (%)	60%	ASTM D638

3 核心特性 Key Product Features

• 优异的附着性能 (Excellent Adhesion)

通过端基极性修饰，树脂能与基材表面形成强力的物理锚定，显著提升在 PC、ABS 及 PVC 等极性塑料基材上的层间结合力。

Optimized polar group modification enhances physical anchoring and intercoat adhesion on various polar substrates.

• 均衡的坚韧性与润湿性 (Balanced Toughness & Wetting)

分子链中交替分布的氨基甲酸酯硬段与柔性链段，赋予漆膜优异的韧性和抗开裂性。

Alternating hard and flexible segments provide exceptional toughness and crack resistance.

• 高效的稀释响应效率 (High Dilution Efficiency)

具有极佳的单体响应性，其粘度削减效率显著高于同类产品，有利于优化配方成本。

Superior viscosity reduction efficiency allows for optimized formulation costs.

4 建议应用 Product Applications

- **真空电镀底漆 (Vacuum Metallization Primer)**
为基材提供卓越的润湿性能和附着力，并为后续真空镀层提供极高光泽度的平整表面。
Ensures a high-gloss, smooth surface for metallization with excellent substrate adhesion.
- **塑胶涂料与 PVC 地板 (Plastic Coatings & PVC Flooring)**
作为主体树脂使用，可显著提升图层的耐磨损性能、柔韧性以及长效的抗刮伤能力。
Significantly improves wear resistance, flexibility, and scratch resistance in plastic coatings.
- **美甲甲油胶 (Nail Gel Polish)**
适用于配制高性能底胶与彩胶，确保涂层与指甲表面的长效附着及防起翘性能。
Suitable for high-performance nail gels, providing long-lasting adhesion and anti-cracking.

5 常见问题解答 Q&A

Q: 为什么说 U-Cure 9501 的稀释性较强？ (Why is U-Cure 9501's dilutability stronger?)

A: 该树脂经过分子链结构优化，对常用单体表现出更高的粘度削减效率。
Optimized structure results in higher viscosity reduction efficiency with common monomers.

Q: U-Cure 9501 如何解决开裂问题？ (How does it solve the cracking issue?)

A: 分子结构中引入了柔性缓冲链段，能有效吸收和缓解固化过程中的内应力。
Flexible segments absorb internal stress during curing, providing anti-cracking properties.

6 储存与安全 Storage and Safety

- **储存 (Storage):** 存放于阴暗通风处 (-10°C 至 35°C)，密封有效期 12 个月。避光及远离热源。
Store in cool, ventilated area (-10°C to 35°C). Shelf life is 12 months in sealed containers.
- **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。操作请佩戴个人防护装备，详见 SDS。
Irritating to eyes. Wear personal protective equipment. Refer to SDS for details.

联系方式 Contact Information

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