

U-Cure 9321

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

高交联密度与柔韧性平衡树脂 / High Crosslink Density & Flexible Oligomer

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 9321 是一款专为平衡高性能指标而研发的聚氨酯丙烯酸酯树脂。其设计的核心优势在于成功克服了传统高性能树脂在提升硬度时伴随的脆性问题。通过分子链段的精确调控，U-Cure 9321 在实现高交联密度的同时，赋予漆膜卓越的柔韧性。

U-Cure 9321 is a urethane acrylate oligomer engineered for balancing high-performance metrics. Through precise molecular segment control, it achieves high crosslink density while imparting superior flexibility, overcoming the brittleness typically associated with high-hardness resins.

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)	4,000 - 5,000	ASTM D2196
固含量 Solid Content (%)	100%	GB/T 1725
官能度 Functionality	6	Theoretical
NCO 残存 NCO Content (%)	< 0.2%	Titration

3 核心特性 Key Product Features

- 高交联密度 (High Crosslink Density)**
密集的交联结构为涂层提供了顶级的物理硬度、耐磨性及优异的耐化学溶剂性能。
Dense crosslinking structure provides top-tier physical hardness and excellent chemical resistance.
- 卓越的柔韧性 (Exceptional Flexibility)**
即使在较高的膜厚条件下进行 180° 对折测试，涂层依然保持完整、不脆裂。
The coating remains intact and crack-free during 180° fold tests even under high film thickness.
- 优异的耐黄变性 (Excellent Non-yellowing)**
全脂肪族结构确保了涂层在紫外线长期照射下依然能保持清澈透明。
The fully aliphatic structure ensures long-term UV resistance and transparency.

4 建议应用 Product Applications

- 高端 3C 电子涂料 (Premium 3C Electronics)**
适用于手机、笔记本电脑等精密外壳的 UV 罩光，提供极致的手感与耐用保护。
Ideal for UV topcoats on precision housings like mobile phones, offering premium tactile feel.
- 薄膜涂料 (Film Coatings)**
在功能性薄膜基材上表现出优异的附着力和耐弯折性，满足卷材加工需求。
Exhibits excellent adhesion and bending resistance on various functional film substrates.

5 常见问题解答 Q&A

Q: 为什么 U-Cure 9321 的应用重点在于韧性? (Why is the focus on toughness?)

A: 市场上的高硬度树脂普遍“硬而脆”。U-Cure 9321 解决了施工中常见的爆漆和开裂问题，提升了成品率。

It solves common cracking issues found in high-hardness resins, significantly improving production yield rates.

6 储存与安全 Storage and Safety

- **储存 (Storage):** 建议存放于 -10°C 至 35°C 的阴凉干燥环境中，避光密封保存。保质期为 12 个月。
Store in a cool, dry place between -10°C and 35°C . Shelf life is 12 months.
- **安全 (Safety):** 本品对眼睛有刺激性。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

昆山卡斯特高分子材料有限公司 Kunshan Kaster Polymer Co., Ltd.

地址：江苏省昆山市玉山镇祖冲之路 1666 号清华科技园

Tel: 0512-50137234 Web: www.kasterchem.com