

U-Cure 9319

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

聚氨酯丙烯酸酯低聚物 / Urethane Acrylate Oligomer

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 9319 是一款高性能的二官能团聚氨酯丙烯酸酯树脂。其设计核心在于平衡快速固化能力与优异的机械性能，旨在为高性能涂料提供坚韧且附着力强的成膜基础。

U-Cure 9319 is a high-performance difunctional urethane acrylate oligomer designed to balance fast curing speed with excellent mechanical properties, providing a tough and high-adhesion film base for high-performance coatings.

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	澄清透明液体 / Clear Liquid	Visual (25°C)
粘度 Viscosity (cps @ 60°C)	12,000 - 22,000	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	97A	ASTM D2240
拉伸强度 Tensile Strength	21 MPa	ASTM D638
断裂伸长率 Elongation	55%	ASTM D638

3 核心特性 Key Product Features

- 优异柔韧性 (Excellent Flexibility)**
具有良好的拉伸和弯曲性能，能有效适应基材形变而不开裂。
Good elongation and bending properties to effectively accommodate substrate deformation without cracking.
- 相溶性佳 (Good Compatibility)**
与多种活性单体及颜填料具有极佳的相溶性，配方适用性广。
Excellent compatibility with various active monomers and pigments, offering wide formulation flexibility.
- 快速固化与耐黄变 (Fast Curing & Yellowing Resistance)**
在提高生产效率的同时，确保涂层在长期使用中保持颜色稳定性。
Improves production efficiency while ensuring color stability during long-term use.

4 建议应用 Product Applications

- **甲油胶 (Nail Gel Polish)**

作为主体树脂提供良好的成膜韧性和光泽，且对甲面具有优异的润湿性。

Used as a primary resin to provide film toughness and gloss, with excellent wetting properties on nail surfaces.

- **塑胶与电子漆 (Plastic & Electronic Coatings)**

推荐用于手机、电子产品外壳等对触感和韧性有要求的软质涂料。

Recommended for soft-touch coatings for mobile phones and electronic housings requiring toughness.

- **功能性涂层 (Functional Coatings)**

用于纸张、薄膜及各类工业保护膜，提供优异的耐折叠保护。

Used for paper, film, and various industrial protective films, providing excellent folding resistance.

5 常见问题解答 Q&A

Q: U-Cure 9319 是否支持 LED 固化? (Does 9319 support LED curing?)

A: 是的，该产品具有较高的反应活性，在配方调整后可配合 LED 灯源实现极速固化。

Yes, it has high reactivity and can achieve ultra-fast curing with LED light sources after formulation adjustment.

6 储存与安全 Storage and Safety

- **储存 (Storage):** 密封避光存放于 -10°C 至 35°C 环境。保质期为 12 个月。

Store in sealed, light-proof containers at -10°C to 35°C . Shelf life is 12 months.

- **安全 (Safety):** 对眼睛有刺激性。操作请佩戴个人防护装备，避免直接接触皮肤，详见 SDS。

Irritating to eyes. Wear personal protective equipment and avoid direct skin contact. Refer to SDS for details.

联系方式 Contact Information

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