

U-Cure 9315

六官能聚氨酯丙烯酸酯树脂 / Hexafunctional UA

六官能聚氨酯丙烯酸酯低聚物 / Hexafunctional Urethane Acrylate Oligomer

技术资料表 Technical Data Sheet (TDS)

1 产品介绍 Product Introduction

U-Cure 9315 是一款高性能的六官能聚氨酯丙烯酸酯树脂。其核心技术优势在于实现了物理韧性与表面硬度的平衡。在提供卓越表面防护的同时，膜层依然保持出色的坚韧性，有效解决了高官能树脂普遍存在的易脆、易开裂问题。

U-Cure 9315 is a high-performance hexafunctional urethane acrylate oligomer. Its core technical advantage lies in achieving a balance between physical toughness and surface hardness. While providing superior protection, the film maintains excellent durability, effectively overcoming the brittleness common in high-functionality 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)	1,000 - 2,000	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
色数 Color (Gardner)	≤ 1	ASTM D1544

3 核心特性 Key Product Features

- 兼具硬度与坚韧性 (Combining Hardness and Toughness)**
作为六官能树脂，它能提供极高的表面耐刮擦性能，但在分子设计上保留了极佳的物理坚韧性，使固化膜具备优异的抗开裂与物理强度。
As a hexafunctional resin, it provides high surface scratch resistance while retaining excellent physical toughness through molecular engineering, granting the cured film superior crack resistance and strength.
- 优异耐黄变性 (Excellent Non-yellowing)**
特殊的分子架构确保涂层在长期光照或严苛环境下仍能保持透明度。
The specific molecular architecture ensures the coating maintains its clarity under long-term light exposure or harsh environments.

4 建议应用 Product Applications

- 3C 电子涂料 (3C Electronics Coatings)**
用于智能手机、笔记本电脑等电子产品的表面涂层，提供极高的表面耐磨损性能以及出色的防摔保

护。

Used for surface coatings on smartphones and laptops, providing exceptional surface wear resistance and excellent drop protection.

- **薄膜光学涂料 (Optical Film Coatings)**

适用于各类光学薄膜的功能性涂层，在保证高硬度的同时维持高透光率。

Suitable for functional coatings on optical films, maintaining high light transmittance while ensuring high hardness.

5 常见问题解答 Q&A

Q: U-Cure 9315 如何在六官能度下保持坚韧性？ (How does U-Cure 9315 maintain toughness at hexafunctionality?)

A: 通过优化的聚氨酯骨架结构，我们在分子链中引入了具有缓冲作用的柔性链段。这使得树脂在固化成膜后，既拥有高官能度带来的表面抗刮伤能力，又具备传统硬脆树脂所欠缺的抗折叠与抗冲击坚韧性。

Through an optimized polyurethane backbone, flexible buffer segments are introduced into the molecular chain. This allows the resin to provide high surface scratch resistance from its functionality while maintaining the folding and impact toughness that brittle resins lack.

6 储存与安全 Storage and Safety

- **储存 (Storage):** 应该存放于合适的密封容器中，并置于温度在 -10~35°C 的阴暗环境中储存。在此条件下，保质期至少为 12 个月。

Store in sealed containers in a dark environment between -10 and 35°C. Shelf life is at least 12 months under these conditions.

- **包装 (Packaging):** 标准包装为 200kg/桶。

Standard packaging is 200kg per drum.

- **安全 (Safety):** 本品对眼睛有刺激性，对水生生物有毒。使用前请仔细阅读安全数据表 (SDS) 中的防护与生态资料。

This product causes eye irritation and is toxic to aquatic life. Please refer to the Safety Data Sheet (SDS) for protection and ecological data before use.

联系方式 Contact Information

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