

U-Cure 9110

聚氨酯丙烯酸酯树脂 / Polyurethane Acrylate Resin

Low Viscosity Bifunctional Oligomer

技术资料表 Technical Data Sheet (TDS)

1 产品介绍 Product Introduction

U-Cure 9110 是一种低粘度的二官能团聚氨酯丙烯酸酯树脂。该产品专门设计用于平衡体系的粘度与物理性能，在确保极佳附着力的同时，为固化膜提供优异的柔韧性与抗冲击能力。

U-Cure 9110 is a low-viscosity bifunctional aliphatic urethane acrylate. It is specifically designed to balance system viscosity and physical properties, providing excellent adhesion and flexibility.

2 核心特性 Key Product Features

- 超低粘度与高施工性 (Ultra-low Viscosity & High Workability)**
粘度仅为 150-300 cps，展现出极佳的稀释能力与降粘效率。在配方中能显著改善涂料的流平性与基材润湿性，特别适合精密辊涂、喷涂等高效率施工工艺。
Exceptional thinning efficiency with 150-300 cps viscosity, improving leveling and substrate wetting for precision application.
- 优异的广谱附着力 (Superior Broad-spectrum Adhesion)**
分子结构中含有特定极性基团，对 PC、ABS、PET 等塑胶基材以及部分金属具有优异的初始附着力，有效防止涂层在后续加工中的脱落或边缘崩漆。
Contains polar groups providing excellent initial adhesion to PC, ABS, PET, and metals, preventing coating delamination.
- 平衡的柔韧性与韧性 (Balanced Flexibility & Toughness)**
二官能团结构在固化后形成弹性的交联网络。漆膜具有极佳的耐弯折性能与抗冲击强度，不仅能适应柔性基材的形变，还能保持表面涂层的完整性。
Bifunctional structure forms an elastic network with superior bending and impact resistance, adapting to substrate deformation.
- 固化速度快与高效节能 (Fast Curing & Energy Efficiency)**
具有极高的感光反应活性，在常规 UV 或低能量 LED-UV (365/395nm) 照射下均可实现快速固化，有助于缩短生产周期并降低能耗。
High photosensitivity ensures rapid curing under standard UV or LED-UV, boosting production efficiency and saving energy.

3 物理及力学特性 Physical 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
色数 Color (Gardner)	≤ 1	ASTM D1544
粘度 Viscosity (cps @ 25°C)	150 - 300	ASTM D2196
官能度 Functionality	2	Theoretical
固含量 Solid Content (%)	100%	GB/T 1725
NCO 残存 (%)	< 0.2%	内标 Internal

4 4 建议应用 Product Applications

- **环保涂料体系 (Eco-friendly Coatings)**

适用于高固含及无溶剂 UV 涂料，有效降低溶剂排放。

Suitable for high-solid and solvent-free UV coatings to reduce emissions.

- **塑胶装饰涂装 (Plastic Decoration)**

广泛用于 3C 电子产品、家用电器等外壳喷涂，提供持久保护。

Used for electronic and household appliance shells, providing long-term protection.

- **高性能油墨 (High-performance Inks)**

作为丝印、胶印 UV 油墨的主体树脂，提升油墨的附着力与柔韧性。

Acts as a main resin for UV inks to improve adhesion and flexibility.

5 5 常见问题解答 Q&A

Q: U-Cure 9110 是否会影响涂层的硬度？ (Will it affect the hardness?)

A: 该树脂主要提供柔韧性与附着力。如需更高硬度，建议与高官能度（如六官）聚氨酯丙烯酸酯树脂复配使用。

It mainly provides flexibility. For higher hardness, blend with multi-functional oligomers.

6 6 储存与安全 Storage and Safety

- **储存 (Storage):** 避光、阴凉处密封储存 (-10 ~ 35°C)。保质期 12 个月。

Keep sealed in a cool, dark place (-10 to 35°C). Shelf life: 12 months.

- **包装 (Packaging):** 标准 200kg/桶。

Standard 200kg per drum.

- **安全 (Safety):** 对眼睛有刺激性，操作时请佩戴防护镜与手套。详见产品 SDS 文件。

Eye irritant. Wear protective gear. See SDS for details.

联系方式 Contact Information

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