U-Cure 9393

六官能团聚氨酯丙烯酸酯树脂

Hexafunctional Urethane Acrylate Resin

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 9393 是一款高性能六官能团聚氨酯丙烯酸酯树脂。该产品专门设计用于提供极高的固化效率和卓越的表面物理性能，是高性能 *UV* 涂层系统的理想选择。

U-Cure 9393 is a high-performance hexafunctional urethane acrylate resin. It is specifically designed to provide high curing efficiency and exceptional surface properties, making it ideal for high-performance UV coating 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 / Clear Liquid	Visual
粘度 Viscosity (cps @ 60°C)	400 - 1,000	ASTM D2196
固含量 Solid Content (%)	100%	GB/T 1725
官能度 Functionality	6	Theoretical
NCO 残存 NCO Content (%)	< 0.2%	-
色数 Color (Gardner)	≤ 1	ASTM D1544

3　核心特性 Key Product Features

- **高效固化与卓越硬度 (High Reactivity & Exceptional Hardness)**
  具有极快的固化速度，能够显著提升自动化生产线产能；同时固化膜具有极高的硬度，提供优异的抗划伤与耐磨损性能。
  Features extremely fast curing speed to significantly increase production capacity; meanwhile, the cured film exhibits very high hardness, providing excellent scratch and abrasion resistance.

- **优异流平与卓越展色 (Excellent Leveling & Superior Color Development)**
  具备出色的表面流平能力，可形成镜面平整效果；同时对颜料具有良好的润湿性和分散稳定性，使涂层色彩饱和度高、色泽鲜艳。
  Outstanding surface leveling capability for a mirror-like finish, combined with excellent pigment wetting and dispersion stability for high color saturation and vividness.

- **优异的耐黄变性 (Excellent Yellowing Resistance)**
  精选的脂肪族聚氨酯结构赋予其卓越的色彩稳定性，即使在严苛的户外环境或长时间紫外线照射下也能保持涂层清晰透明，不发黄。
  The selected aliphatic urethane structure provides outstanding color stability, maintaining a clear and transparent coating without yellowing even under harsh environments or prolonged UV exposure.

4 建议应用 Product Applications

- **电子产品涂装 (Electronics Coating)**
  手机、笔记本电脑和平板电脑等塑料外壳的高硬度面漆。
  High-hardness topcoats for plastic housings of smartphones, laptops, and tablets.
- **真空电镀 (Vacuum Metallization)**
  用作电镀底漆或面漆，提供优异的附着力与镜面效果保护。
  Used as basecoat or topcoat in vacuum metallization to provide adhesion and protection.
- **高光泽色漆 (High-Gloss Colored Paints)**
  利用其优异的展色性与流平性，用于各种色彩鲜艳、表面平整度要求高的 *UV* 色漆系统。
  Leveraging its superior color development and leveling for vibrant UV colored paint systems with high surface requirements.

5 常见问题解答 Q&A

Q: 为什么在低温下 U-Cure 9393 会出现浑浊或半固体状态？ (Why does U-Cure 9393 appear cloudy or semi-solid at low temperatures?)

A: 由于树脂特殊的分子结构，在环境温度较低时容易产生结晶现象。这并非产品固化或失效。
使用建议：可通过 *50-80°C* 烘烤加热使结晶完全消失后再稀释使用。
Due to its specific molecular structure, the resin may crystallize at low temperatures. This is a normal physical transition. Guidance: Heat at 50-80°C until crystals disappear before use.

6 储存与安全 Storage and Safety

- **储存 (Storage)**: 建议存放在 *-10 35°C* 的阴暗干燥环境中，保持容器密封。有效期至少 *12* 个月。
  Store in a dark, dry environment at -10 35°C with containers tightly sealed. Shelf life is at least 12 months.
- **安全 (Safety)**: 本品对眼睛有刺激性，对水生生物有毒。操作前请查阅安全数据表 *(SDS)*。
  This product is irritating to eyes and toxic to aquatic life. Please refer to the Safety Data Sheet (SDS) before handling.

联系方式 Contact Information

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