KASTER

Innovation in Polymer Chemistry
昆山卡斯特高分子材料有限公司

U-Cure 9576

二官聚氨酯丙烯酸酯 / Difunctional Urethane Acrylate

脂肪族聚氨酯丙烯酸酯 *UV* 树脂 / *Difunctional Aliphatic Urethane Acrylate UV Resin*

技术资料表　Technical Data Sheet (TDS)

1　产品介绍 Product Introduction

U-Cure 9576 是一种双官能度的脂肪族聚氨酯丙烯酸酯 *UV* 树脂。该产品设计旨在提供卓越的物理性能，特别是在极性基材和低表面能材料上的卓越粘合力。其分子结构赋予了涂层极佳的柔韧性与耐候性。
U-Cure 9576 is a difunctional aliphatic urethane acrylate UV resin designed to provide excellent physical properties, especially superior adhesion to polar substrates and low surface energy materials. Its molecular structure grants the coating exceptional flexibility and weatherability.

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)	5,000 - 20,000	ASTM D2196
固含量 Solid Content (%)	100%	GB/T 1725
官能度 Functionality	2	Theoretical
NCO 残存 NCO Content (%)	＜ 0.2%	Internal Method
绍氏硬度 Shore Hardness	80A	ASTM D2240
拉伸强度 Tensile Strength	12 MPa	ASTM D638
断裂伸长率 Elongation	320%	ASTM D638

3　核心特性 Key Product Features

- **强力粘结 (Excellent Adhesion)**
  在各种极性基材及难粘材料（如 *TAC/PVA/COP/PET*）上表现出极佳的附着力。
  Exhibits outstanding adhesion on various polar substrates and difficult-to-bond materials.
- **环境抗性 (Environmental Resistance)**
  具有优异的耐水、耐湿热性能，适合严酷环境应用。
  Possesses excellent water and heat/humidity resistance, suitable for harsh environments.
- **柔韧性与伸长率 (Flexibility and Elongation)**
  高伸长率设计，能够有效吸收基材间的热胀冷缩应力，降低内应力。
  High elongation design effectively absorbs stress between substrates and reduces internal stress.

4　建议应用 Product Applications

- **特殊薄膜胶粘剂 (Film Adhesives)**
  用于 *TAC*、*PVA*、*COP*、*PET* 等低表面能薄膜的粘接，提供持久的剥离强度。

Used for bonding low surface energy films such as TAC, PVA, COP, and PET, providing durable peel strength.

- **电子/结构胶 (Electronic/Structural Adhesives)**
  金属与玻璃、塑料（*ABS/PC/PMMA*）之间的结构性粘接，抵抗湿热老化。
  Structural bonding between metal, glass, and plastics (ABS/PC/PMMA), resistant to heat and humidity aging.

5 常见问题解答 Q&A

Q: U-Cure 9576 如何改善 UV 胶粘剂在难粘基材上的表现? (How does U-Cure 9576 improve adhesion?)

A: 该树脂通过特殊的脂肪族链段设计增加了极性基团的密度，从而增强了与 *TAC/PET* 等材料的分子间作用力。
The resin increases the density of polar groups through specialized aliphatic segments, enhancing intermolecular forces with materials like TAC/PET.

Q: 推荐的固化条件是什么? (What are the recommended curing conditions?)

A: 建议使用汞灯或 *365nm/395nm LED* 光源，典型固化能量在 *500-1500 mJ/cm*^{2} 之间。
Mercury lamps or 365nm/395nm LED sources are recommended, with typical curing energy between 500-1500 mJ/cm^2*.*

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 *12* 个月。
  Store in sealed, light-proof containers at -10°C to 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

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