

# U-Cure 9219

聚酯丙烯酸酯树脂

Polyester 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 9219 是一款三官能团聚酯丙烯酸酯树脂。其分子结构经过特殊设计，不仅能提供卓越的物理抓地力，更能在经过电晕、火焰或等离子处理 (Pre-treated) 的 PE、PP 基材以及金属、玻璃等无机基材表面形成牢固的化学键合。该产品旨在解决高难度基材表面的涂层附着力难题。

U-Cure 9219 is a trifunctional polyester acrylate resin. Its molecular structure is specially designed to provide not only excellent physical grip but also strong chemical bonding on surface-treated (e.g., corona, flame, or plasma treated) PE and PP substrates, as well as inorganic substrates like metal and glass. This product is engineered to solve adhesion challenges on difficult surfaces.

### 2 核心特性 Key Product Features

#### • 多基材通用附着力与增强键合 (Versatile Adhesion & Enhanced Bonding)

对铝材、不锈钢等金属、玻璃以及处理后的 PE、PP 表现出卓越的附着力。其分子链中的极性基团能与基材表面的氧化层或羟基形成强有力的氢键或共价键结构。

Exhibits superior adhesion to metals, glass, and treated PE/PP substrates. Special polar groups in its molecular chain form strong hydrogen bonds or covalent structures with surface oxide layers or hydroxyl groups.

#### • 高反应活性与低能量固化 (High Reactivity & Low Energy Curing)

具备极高的感光活性，在 UV 低能量条件下即可实现彻底固化。

Possesses high photosensitivity and achieves complete curing even under low UV energy conditions.

#### • 卓越的耐水与耐候性 (Excellent Water & Weather Resistance)

固化膜致密，能有效阻隔水分渗透至界面层，提升金属防锈能力及玻璃涂层的耐水煮性能。

The dense cured film effectively blocks moisture penetration to the interface, enhancing metal rust resistance and water-boiling resistance of glass coatings.

### 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 / Transparent Liquid	Visual
色数 Color (Gardner)	≤ 1	ASTM D1544
粘度 Viscosity (cps @ 25°C)	15,000 - 30,000	ASTM D2196
官能度 Functionality	3	Theoretical
固含量 Solid Content (%)	100%	GB/T 1725
酸值 Acid Value (mg KOH/g)	≤ 3	GB/T 2895

## 4 建议应用 Product Applications

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- **金属及玻璃工业涂装 (Metal & Glass Industrial Coating)**

用于金属包装、电子外壳底漆及家电玻璃面板涂料，提供优异的结合力。

*Used for metal packaging, electronic casing primers, and appliance glass panel coatings, providing excellent bonding.*

- **处理后 PE/PP 薄膜及制品 (Treated PE/PP Films & Products)**

广泛应用于经过电晕处理的包装薄膜、容器及汽车塑料件。

*Widely used in corona-treated packaging films, containers, and automotive plastic parts.*

## 5 常见问题解答 Q&A

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**Q:** U-Cure 9219 如何提升在金属和玻璃上的附着力？ (How does it improve adhesion on metal and glass?)

**A:** 金属和玻璃表面带有极性氧化层或羟基。9219 结构中含有丰富的极性链段，能形成高强度的偶极相互作用和氢键，且低收缩率特性减少了固化应力。

*Metal and glass surfaces have polar oxide layers or hydroxyl groups. The polar segments in 9219 form high-strength dipole interactions and hydrogen bonds, while low shrinkage reduces curing stress.*

## 6 储存与安全 Storage and Safety

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- **储存 (Storage):** 存放于密封容器，置于温度  $-10^{\circ}\text{C}$  至  $35^{\circ}\text{C}$  的阴暗通风环境。有效期 12 个月。

*Store in sealed containers in a dark, ventilated environment at  $-10^{\circ}\text{C}$  to  $35^{\circ}\text{C}$ . Shelf life is 12 months.*

- **包装 (Packaging):** 200kg/桶。

*200kg per drum.*

- **安全 (Safety):** 对眼睛有刺激性，对水生生物有毒。操作请戴防护用具并查阅 SDS。

*Irritating to eyes and toxic to aquatic organisms. Wear protective equipment and refer to SDS.*

## 联系方式 Contact Information

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昆山卡斯特高分子材料有限公司 Kunshan Kaster Polymer Co., Ltd.

地址：江苏省昆山市玉山镇祖冲之路 1666 号清华科技园

Address: Tsinghua Science Park, No. 1666 Zuchongzhi Road, Kunshan, Jiangsu, China

Tel: 0512-50137234 Fax: 0512-50137230 Web: www.kasterchem.com