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**TECHNICAL DATA SHEET**

# UFC1386 A/B FDA LIQUID EPOXY RESIN
# UFC1386 A/B FDA 液态环氧树脂技术信息表

UFC1386 A/B is a two-part, thixotropic, high strength, epoxy adhesive. It has excellent wet out and can easily penetrate fibrous substrates. UFC1386 A/B has exceptional adhesive strength to a wide variety of substrates, including membranes, separators and other material used in reverse osmosis. The raw materials used in UFC 1386 A/B are listed for use in "food-packaging adhesive" applications under the legal provision and are considered "FDA approved" under the same provision.

UFC1386 A/B 是二组合、触变型、高强度的树脂粘合剂，具有良好的润湿性并易于穿透纤维性基质。因为高强度黏合性该树脂适用于范围很广的基质，包括薄膜、分离膜等很多反渗透性物质。原材料符合美国食品药品监督管理局所批准的关于食品包装黏合剂，其应用安全合法。

UFC1386 A/B is a 100% solids epoxy thermoset adhesive. A faster curing version is available, UFC1380 A/B.

UFC1386 A/B 是 100% 固热性树脂胶粘剂，它的加速固化型是 UFC1380 A/B。

## Instruction for Use 使用介绍

Surfaces should be clean and free of markings using methods and solvents suitable to the substrates being bonded. Additional surface prep may be necessary.

胶合表面应清洁，无溶剂使用过的痕迹。可使用表面附加物，如果有必要的话。

The material is supplied in separate containers for UFC1386 Part A and UFC1386 Part B or in side-by-side tubes with a static nozzle. From separate containers, measure the components according to parts by weight or volume ratio, as indicated below, into a clean container to be used for mixing.

UFC1386 A 组和 UFC1386 B 组可分别从不同容器供给，或者借由带静态喷嘴的并排侧管供给。如果选择前者，可通过以下重量比或者体积比确定各组成分用量，装入清洁容器中进行混合。

Mix Ratio (by weight A:B): 100:45
混合比（按重量 A:B）
Mix Ratio (by volume A:B): 2:1
混合比（按体积 A:B）
Pot Life: Do not mix more than can be applied in 45-60 minutes.
适用时间：混合时间勿超过 45-60 分钟

## Cure Schedule 固化时间

Cure time depends on the temperature of the curing material. At room temperature (75°F), a tack free thermoset is achieved in about eight hours. Full strength requires 5-7 days at R.T. For most manufacturing procedures, the parts can be handled and even worked after six to eight hours at 75°F. Much faster cures can be achieved with the application of heat. At 180°F, full cure is achieved in as little as 2-3 hours.

固化时间依固化材料温度而定。室温下（75℉）要达到无粘性热固化需要约 8 小时，完全固化需要 5-7 天。在生产过程中，该树脂的组合部分在 75℉ 条件下 6 至 8 小时之后仍处在工作状态中。在加热的条件下可缩短固化时间， 如 180℉ 完全固化只需要 2-3 小时。

UFC
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Handling Properties, typical 工艺特性

| | |
|---|---|
| Cure Schedule: | 5~7 days at R.T. or 2~3 hours @ 150°~180°F |
| 固化时间： | 室温 5-7 天，或者 150°~180°F 2-3 小时 |
| Mix Ratio (by weight A:B): | 100:45 |
| 混合比（按重量 A:B） | |
| Mix Ratio (by volume A:B): | 2:1 |
| 混合比（按体积 A:B） | |
| Color: Part A: | translucent –white |
| 颜色 A 组 | 半透明到白色 |
| Part B: | translucent- amber |
| B 组 | 半透明到琥珀色 |
| Mixed: | translucent – white |
| 混合 | 半透明到白色 |
| Pot Life, 150 grams @ 77°F: | 2.0 hours |
| 适用时间（150g, 77°F） | |
| Gel Time, 150 gram @ 77°F: | 2.5 hours |
| 胶化时间（150g, 77°F） | |
| Shelf Life from date of shipment (DOS): | 12 months |
| 保质期（自运输时间开始） | |
| Specific Gravity (typical): | A: 1.21; B:1.00 |
| 比重 | |
| Viscosity @ 77°F (cps): | thixotropic |
| A 组粘度（77°F，厘帕斯卡・秒）： | 触变 |
| SPI classification: | A: 2; B:3 |
| SPI 分类（美国塑料工业协会） | |
| Flash point: | >200°F |
| 闪点 | |

Physical Properties, Typical Cured Performance 物理特性

Shore Hardness, D: 70+
肖氏硬度
Ideal Bondline Thickness, inches: 0.002” to 0.015’’
胶层理想厚度
Lap Shear Strength, Typical, Aluminum: >1000psi
剪切强度（铝）
Lap Shear Strenght, Typical, Fiberglass: >800*
剪切强度（纤维玻璃）
Lap Shear Strength, Typical, Graphite Composite: 1700*
剪切强度（复合石墨）
Heat Distortion Temperature, typical: 180°F
热变形温度

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* 基底受损

Chemical Exposure vs % Weight Change 化学变化与重量变化比

| | 3 weeks | 3 months | 1 year |
|---|---|---|---|
| Xylene 二甲苯 | 25.3 | 25.3 | 25.2 |
| Ethanol 乙醇 | 8.2 | 11.1 | 20.2 |
| Water 水 | 1.00 | 1.60 | 3.60 |
| 10% NaOH 10%氢氧化钠 | 0.7 | 1.2 | 2.5 |
| 50% NaOH 50%氢氧化钠 | 0.1 | | 0.5 |
| 10% H2SO4 10%硫酸 | 2.1 | 4.3 | 11.1 |
| 70% H2SO4 70%硫酸 | 0.9 | 3.7 | 10.4 |
| 10% HCL 10%盐酸 | 1.2 | 2.4 | 5.9 |
| 20% H2NO3 20%硝酸 | 1.6 | 4 | 7.4 |
| 10% Acetic 10%醋酸 | 9 | 18.1 | 21.2 |

SAFETY INFORMATION: see Materials Safety Data Sheet for UFC1386 A/B for proper storage and handling.
储存及工艺安全信息请另参考《材料安全数据 UFC1386 A/B》