

NANOMYTE® MEND 1000-UVP

NANOMYTE® MEND 1000-UVP is a thermally-induced, self-healing coating with enhanced weatherability and the ability to protect UV-sensitive surfaces. The 2-part coating involves a unique phase-separated morphology that facilitates the delivery of the self-healing agent to the damage site (such as a scratch or crack), thereby restoring the coating's original appearance and function. The coating can be self-healed by the application of warm air for several seconds with a simple device, such as a household hair dryer.

Physical Characteristics

Composition:	2k polyurethane with proprietary additives
Color:	Clear, colorless
Gloss (20°/60°):	88 GU/ 92 GU
Pot Life:	> 3 hours
Viscosity:	Not available
Curing Temperature:	60°C (minimum)
Solvent:	Toluene
Catalyst:	Tin
Mixing Ratio by Mass (A:B):	1:1
Solids Content:	33 – 36%
Dry Film Thickness (DFT):	1.5 mils (minimum recommended)
Weatherability:	1000 hours (minimum, DFT = 2 mils) by ASTM D4587 (G154, Cycle 1)

Application Instructions

1. Combine 1 part (by mass) of Part A with 1 part of Part B
2. Mix thoroughly until homogeneous and apply promptly (preferably within 2 hours)
3. Once applied, transfer coated part to preheated oven within 5 minutes, or otherwise apply heat as soon as possible
4. Recommended curing schedule: 80°C for 15 minutes, followed by 120°C for 1 hour

APPLICATION NOTES

- Self healing is initiated by heating the film to a temperature of 60°C or greater
- Healing response is faster at temperatures of 70°C and greater
- Avoid extended exposure to temperatures in excess of 140°C
- Depending on film thickness and curing conditions, hardness may continue to develop over a period of days to weeks
- For best performance, when applying to UV-sensitive surfaces (e.g., plastics, composites), apply as thick a coating as possible, and/or ensure a minimum dry film thickness of 1.5 mils. Select the appropriate surface preparation protocol (cleaning and/or surface treatment, priming) and test to ensure coating adhesion has been maximized. Some surfaces (e.g., certain paints, plastics and composites) may require a primer, such as **NANOMYTE® SR-Primer**.

Storage & Handling

Precautions for Safe Handling

Appropriate personal protective equipment should be used at all times. Provide good ventilation or extraction. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated breathing of vapor. Wash hands thoroughly after handling. Keep away from heat, sparks, flames and other sources of ignition.

Conditions for Safe Storage

PART A: Avoid contamination with incompatible materials. Keep away from heat, sparks, flames and other sources of ignition. Residual vapors might explode on ignition. Do not apply heat, cut, drill, and grind or weld on or near this container.

PART B: Keep container tightly sealed. Store at room temperature in a dry place. Keep away from sources of ignition. Protect from cold temperatures (< 60°F). Gelation/precipitation as a result of low temperature exposure may be reversed by warming to ~100°F for several hours. Purge container with dry, inert gas after use.

Refer to SDS for complete information on the safe handling of this product.

NANOMYTE® MEND 1000-UVP**Additional Information**

WARNING: This product should not be used, stored, or transported until all handling precautions and recommendations stated in the Technical Data Sheet (TDS) and Safety Data Sheet (SDS) for this coating are understood. Exposure should be minimized and direct contact should be avoided through the observance of proper precautions, use of appropriate engineering controls, and proper personal protective clothing and equipment.

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