

NANOMYTE® MEND-3000 is a 2-part, solvent-borne, self-healing coating that can be cured at room temperature.

PHYSICAL CHARACTERISTICS

Composition:	2k polyurethane with proprietary additives
Color:	Clear, colorless
Gloss (20°/60°):	81 GU/ 87 GU
Pot Life:	> 3 hours
Viscosity:	Not available
Curing Temperature:	20°C (minimum)
Solvent:	Toluene
Catalyst:	Tin
Mixing Ratio by Mass (A:B):	4:1
Solids Content:	33 – 36%

APPLICATION INSTRUCTIONS

1. Combine 4 parts (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, dry-to-touch conditions can be achieved within 30 minutes (1 mil @ 25°C)
4. Recommended ambient cure time of 60 hours for general use; up to 60 days for full properties
5. Accelerated cure can be achieved on dry-to-touch samples by baking 30 minutes at 100°C

APPLICATION NOTES

- A slight, uniform haze is normal for Part A liquid. It will clear when mixed with Part B.
- Dry-to-touch for thick films (> 1 mil) may be longer than 30 minutes
- 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
- Deep scratches may not be completely healed or may require higher temperatures to heal
- Avoid extended exposure to temperatures in excess of 140°C
- Depending on film thickness and curing conditions, hardness and solvent resistance may continue to develop over a period of weeks to months

INSTRUCTIONS FOR USE

- Use care when first damaging the surface for demonstration purposes. Sharp instruments may cause irreversible damage. Gouges or deep cuts may not fully heal.
- Self-healing begins at 60°C. To demonstrate rapid self-healing properties, the film must reach a uniform temperature of 80°C or greater for at least 5 seconds. Hot water (>80°C) is very efficient for demonstration purposes. Otherwise, use of a heat gun is recommended.
- For testing purposes, complete healing can be ensured by placing the damaged part in an oven for 5 minutes at 100°C.
- Oven-healing for durations beyond 5 minutes, or at temperatures above 110°C, will not typically result in additional self-healing.

STORAGE & HANDLING

Precautions for Safe Handling

PART A: Contains a potential sensitizer! Appropriate personal protective equipment should be used at all times. Provide good ventilation or extraction. Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapor or mist. Keep away from heat, sparks, flames and other sources of ignition.

PART B: Contains a potential sensitizer! 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: Ambient temperature storage is preferred; avoid temperature extremes. 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. Precipitation from low temperature exposure may be reversed by warming.

PART B: Keep container tightly sealed. Store at room temperature in a dry place. Keep away from sources of ignition. Protect from cold temperatures. Gelation may occur as a result of reaction with moisture. Purge container with dry, inert gas after use.

ADDITIONAL INFORMATION

NEI Corporation believes that the information in this technical data sheet is an accurate description of the typical use of the product. However, NEI disclaims any liability for incidental or consequential damages, which may result from the use of their products that are beyond its control. Employers should use this information only as a supplement to other information gathered by them and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. Therefore, it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficacy, and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe any patent or any other intellectual right.

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