

NANOMYTE® SAF-100 is an anti-fog coating for permanent application. The product is sold as a two-part liquid coating composition. It can be dip coated, flow coated or spray coated and is thermally cured.

PHYSICAL CHARACTERISTICS

Color:	Translucent (Part A) / Colorless (Part B)
Mix Ratio (A:B):	10:1 (by weight)
Induction time:	1 hour for spray; 12 hours for other application methods
Dry Film Thickness:	5 – 15 µm (recommended)
Pencil Hardness:	HB
Anti-fog Performance:	Breath Fog Test – No fogging Hot Water Test (80°C) – No fogging Freezer Test – No fogging after transfer from a freezer (-15°C) to a humid environment

SURFACE PREPARATION

Ensure surfaces to be coated are clean and dry and apply a primer if necessary (such as polymer substrates). NEI supplies a primer product, NANOMYTE® SR-Primer, which works well with a range of plastics. The primer may be applied by dipping, flowing, spinning, rolling or spraying.

For spray application of the primer, an HVLP spray gun with a nozzle size of < 1.0 mm is recommended, and the pressure should be set at approximately 25 to 30 psi. A single pass of spraying is recommended for the primer. The primed parts should then be dried at 70 °C for 10 min before application of NANOMYTE® SAF-100.

COATING APPLICATION

It is recommended that coating application be performed in a clean environment to minimize surface defects. To make the coating solution, combine Part A and Part B at a 10:1 weight ratio and mix well by stirring briefly. The coating may be applied by spraying, dipping, or flowing.

For spray application of the coating, an HVLP spray gun with a nozzle size of < 1.0 mm is recommended, and the pressure should be set at approximately 25 to 30 psi. The induction time for spray application is 1 hour (i.e., wait at least 1 hour after mixing before coating application). For other application methods, it is recommended to age the mixed solution for at least 12 hours to obtain a highly uniform coating.

Although the mixed coating solution is stable indefinitely, it is recommended to use the solution within 72 hours after mixing for the best performance.

CURING

NANOMYTE® SAF-100 is thermally cured at an elevated temperature. Recommended curing conditions:

- **PMMA:** 2 hours at 85°C
- **Polycarbonate:** 1 hour at 120°C
- **Other:** 30 minutes at 150°C (for substrates that can withstand high temperatures)

Shorter cure times / reduced temperatures may also be used depending on surface properties and performance requirements. Test samples for desired performance when deviating from recommendations.

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

For best coating performance, keep containers tightly sealed and store in a dry and cool area. Avoid storage above 40°C / 104°F and contamination with incompatible materials. Keep away from heat, sparks, flames and other sources of ignition. Residual vapors might explode on ignition.

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

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.