

Technical Data Sheet

NANOMYTE® SR-110EC

PHYSICAL CHARACTERISTICS

Product Form:	Two-part liquid coating solutions
Color:	Part A – colorless; Part B – colorless
Viscosity (20 °C):	5 – 15 cP (mixed)

TECHNICAL DATA

Contact Angle on Fully Cured Film:	108 – 120° (water); 60 – 70° (hexadecane)
Abrasion Resistance:	Δ Haze < 3% ASTM D1044 Taber abrasion test, polycarbonate substrate, CS-10F wheels, 500 g load, 500 cycles
Mix Ratio:	Part A / Part B = 1 / 1 (weight or volume)
Curing Temperature:	85°C (minimum recommended)
Cured Film Thickness:	1 – 10 μ m (min / max recommended)

SURFACE PREPARATION

Ensure surfaces to be coated are clean and dry and apply a primer if necessary. NANOMYTE® SR-110EC comes with a primer for polymer substrate. The primer may be applied by dipping, flowing, spinning, rolling or spraying. For spraying, 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 be dried at 80°C for 10 min before application of NANOMYTE® SR-110EC.

COATING APPLICATION

Ensure surfaces to be coated are clean and dry – the surfaces should be water-break-free before 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 1/1 ratio (weight or volume) and mix well by stirring briefly. Avoid vigorous stirring to minimize foam formation. The coating may be applied immediately after mixing by dipping, flowing, spinning, rolling or spraying.

For best coating performance, use the coating solution within 48 hours after mixing, or store the mixed solution in freezer for later use. If stored in freezer, warm the solution up to room temperature before application.

COATING CURING

NANOMYTE® SR-110EC is thermally cured at an elevated temperature. Recommended curing conditions:

- 4 hours at 85°C for PMMA
- 1 hour at 120°C for polycarbonate
- 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

Conditions for Safe Storage

For best coating performance, keep the containers of Part A and Part B tightly sealed and store in freezer. Restore solutions to room temperature before application. Avoid storage above room temperature (25 °C / 77 °F) and contamination with incompatible materials. Keep away from heat, sparks, flames and other sources of ignition.

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Residual vapors might explode on ignition.

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 inhalation of vapor or mist. Keep away from heat, sparks, flames and other sources of ignition.

Refer to MSDS for further information.