



Technical Data Sheet

Light-Curable Adhesives, Sealants, and Masks

**Product
90000**

LED curable, peelable mask for PCB assembly and processing.

Tangent 90000 is a UV/Visible light / LED curable peelable masking material for use in electronic component and Printed Circuit Board (PCB) assembly. This mask offers surface protection from conformal coating overspray and during wave solder processing. Product 90000 adheres to a variety of substrates including metal, ceramic, glass and many plastics. The cured 90000 product is extremely soft and flexible, which minimizes risk of damage to fragile wire leads. Possessing good cohesive strength, this product is easily removed by a manual peel process. Tangent 90000 is a gel viscosity material that is formulated to remain precisely where it is dispensed. This product cures in seconds when exposed to UV/Visible light (320-450nm), with at least 50 mW/cm² intensity. Tangent Product 90000 contains no nonreactive solvents. Colored versions of this mask are available for better visibility of coverage.

UNCURED PROPERTIES

COMPOSITION	Urethane Acrylate / Monomer Blend
VISCOSITY	30,000-50,000 cP at 25° C.
APPEARANCE	Thixotropic gel, clear to slight yellow tint
SPECIFIC GRAVITY	1.1 - 1.2 at 25° C.
FLASH POINT	200° F. (93° C.)
TOXICITY	Refer to Material Safety Data Sheet
SHELF LIFE	One Year

CURED PROPERTIES

DUROMETER	Shore D 35 - 50
WATER ABSORPTION	1% (24 hour immersion)
TEMPERATURE RANGE	- 50° C. to +150° C.

**THE VALUES NOTED IN THIS TECHNICAL DATA SHEET ARE TYPICAL PROPERTIES.
THEY ARE NOT INTENDED TO BE USED AS PRODUCT SPECIFICATIONS.**

Tangent Industries, Inc.
227 Rockwell Street
PO Box 525
Winsted CT USA 06098-0525

Phone 860-738-7449
Fax 860-738-2961
info@tangentindinc.com
www.tangentindinc.com

CURE DATA / GUIDELINES [2mm x 2mm bead size, time in seconds]

Honle Bluepoint LED, Spot Curing System	405 nm @ 2000 mW/cm ²	1 second
Honle Spot 100 LED, Flood Curing System	405 nm @ 200 mW/cm ²	1-2 seconds
Honle Bluepoint 4, Spot Curing System	320-450 nm @ 2000 mW/cm ²	1 second

Note: Actual cure rate in a production environment is dependent upon light source intensity, bond line distance from the light source, bond line gap or required depth of cure, and percentage of light transmission through the substrate covering the bond line. Please consult with Tangent Applications Engineering for assistance with curing equipment selection and process optimization.

PACKAGING OPTIONS - Standard packaging for this product includes 10 and 30 gram syringes, 300 gram cartridges, one kilogram pails, and 17 kilogram pails. Other packaging options may be available upon request.

Storage – This is light sensitive material. Containers must remain covered when not in use. Minimize exposure of uncured material to daylight, artificial light, and UV light during storage and handling. Store uncured product in its original, closed container in a dry location. Unless otherwise indicated on the product label, optimal storage temperatures are 10 to 30°C, (50 to 86°F). Any material removed from the original container must not be returned to the container as it could be contaminated. Tangent Industries cannot assume responsibility for products that were improperly stored, contaminated, or repackaged into other containers.

Handling and Clean-Up – For safe handling information, consult this product's Material Safety Data Sheet (MSDS) prior to use. Uncured material may be wiped away from surfaces with organic solvents. Do not use solvents to remove material from eyes or skin!

Using the Product – Prior to dispensing, ensure that each surface coming in contact with this product is clean and free of grease, mold release, or other contaminants. Dispense directly from the package, or utilize appropriate dispensing equipment that is compatible with light-curable adhesives and coatings. Fluid lines and dispense tips must be 100% light blocking. Curing stations should be equipped with air exhaust systems to evacuate vapors and heat generated during the curing process. After curing, this product must be allowed to cool to ambient temperature before testing the product's performance.

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