3M **Science.
Applied to Life.™**

3M™ High-Temperature Masking Liquid 2538UV

Product Description

3M™ High-Temperature Masking Liquid 2538UV is a UV fluorescing olefin hybrid adhesive that is specially formulated to offer excellent high-temperature resistance and low slump during processing. This specially formulated UV hot melt adhesive provides a clearly detectable means for product location and removes cleanly from various electronic substrates by peeling (even after 10 min @ 260°C (500°F)). The non-silicone formulation reduces the potential for silicone contamination which can interfere with subsequent bonding or conformal coating processes. This high-temperature resistance adhesive also possesses excellent chemical resistance and should be considered for demanding chemical masking applications.

Key Features

- Excellent conformability upon dispensing
- High-temperature slump resistance
- Good wet out on various substrates such as FR4, metals and glass
- Good chemical resistance to conformal coatings, acids and bases ingression
- Fast process time
- Clean removal
- Stable dielectric properties
- Silicone free
- UV detectable

Product Construction/Material Description

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ High-Temperature Masking Liquid 2538UV	
Property	**Description**
Adhesive	Olefin Hybrid
Size	1 Kilogram
Color	Translucent
Excitation Wavelength	~380 nm

Applications

- Protection of sensitive areas and component on printed circuit boards during conformal coating processes
- Masking and sealing of electronic components

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Application Techniques

- Application Temperature: 170° to 200°C
- Application System: Hot melt dispensing equipment

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Final product specifications and testing methods will be outlined in the products Certificate of Analysis (COA) that is shipped with the commercialized product.

3M™ High-Temperature Masking Liquid 2538UV		
Property	Method*	Typical Value
Appearance	Visual	Transparent
Viscosity at 150°C	3M TM-9047	240 Pa·s
Viscosity at 180°C	3M TM-9047	48 Pa·s
Viscosity at 190°C	3M TM-9047	30 Pa·s
Viscosity at 200°C	3M TM-9047	24 Pa·s

*Methods listed as ASTM or IEC are tested in accordance with the ASTM or IEC method noted

3M™ High-Temperature Masking Liquid 2538UV		
Property	Method*	Value
Hardness (Shore A)	3M TM-9040	20
Tensile Elongation	ASTM D412	>700%
Glass Transition Temperature	ASTM 7028	-51°C
Surface Resistivity	ASTM D257	1.6E14 ohm/sq
Volume Resistivity	ASTM D257	>1.0E16 ohm-cm
Dielectric Constant (9 – 25 GHz)	IEC 61189-2-721	2.3
Dissipation Factor (9 – 25 GHz)	IEC-61189-2-721	0.0007
Breakdown Voltage	ASTM D149	38 KV/mm

*Methods listed as ASTM are tested in accordance with the ASTM method noted

Storage and Shelf Life

The shelf life of 3M™ High-Temperature Masking Liquid 2538UV is 24 months from the date of manufacture when stored in the original packaging materials and stored at 21°C (70°F) and 50% relative humidity.

Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is commercially available from 3M. The commercially available product will have a COA specification established. The COA contains the 3M specifications and test methods for the products performance limits that the product will be supplied against. The 3M product is supplied to 3M COA test specifications and the COA test methods. Contact your local 3M representative for this product's COA.

Final product specifications and testing methods will be outlined in the products Certificate of Analysis (COA) that is shipped with the commercialized product.

3M™ High-Temperature Masking Liquid 2538UV

Safety Data Sheet: Consult Safety Data Sheet before use.

Regulatory: For regulatory information about this product, contact your 3M representative.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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