

3M™ Optically Clear Adhesive

OCA 9483

- General purpose adhesive
- Easy converting for good edge quality
- White liner for easy inspection

Product Description

3M™ Optically Clear Adhesive 9483 is an optically clear laminating adhesive for bonding transparent substrates. It is recommended for glass bonding or general purpose applications. No UV curing is required.

Product Construction

Product	3M OCA 9483
Adhesive Type:	Acrylic
Adhesive Carrier:	None
Approximate Thickness:	
Release Liner:	75 um (3.0 mils) Polypropylene
Adhesive:	125 um (5.0 mils)
Release Liner:	50 um (2.0 mils) Clear Polyester



The 3M family of optically clear adhesives for electronic displays are usually available in two forms. 3M OCA come in roll good form. 3M Contrast Enhancement Films (CEF) are available in die-cut form.

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.

Performance to Environmental Conditions:

The following environmental tests were conducted in the 3M laboratory under the conditions specified without any appreciable deterioration in visible appearance (no bubbles, delamination, etc.).

Substrate	Condition	Duration
High Temperature	+95°C	800 hours
Low Temperature	-40°C	500 hours
High Temp/ Humidity	+65°C at 90% R.H.	800 hours
Thermal Shock	-40°C and +85°C (1 hour dwell, <1min ramp time)	500 hours
UV	0.55 W/m ² at 340nm, Daylight filter	500 hours

Peel Adhesion:

ASTM D3330 modified, 180 degree peel from glass, 1 cm wide peel strips, 12 in/min (305 mm/min), 2.0 mil polyester backing

Peel Adhesion to Glass		
Dwell Time	20 min dwell at 23°C/50%RH	3 days dwell at 23°C/50%RH
Units	N/cm	N/cm
3M OCA 9483	12.8	13.9

Color:

Ultra Scan Pro (Hunter Lab), ASTM E308, D65/10°
3M OCA 9483 on LCD glass

Color
L* = 97.0
a* = 0.00
b* = 0.19

Refractive Index:

(+ 0.0005 Metricon measurements)

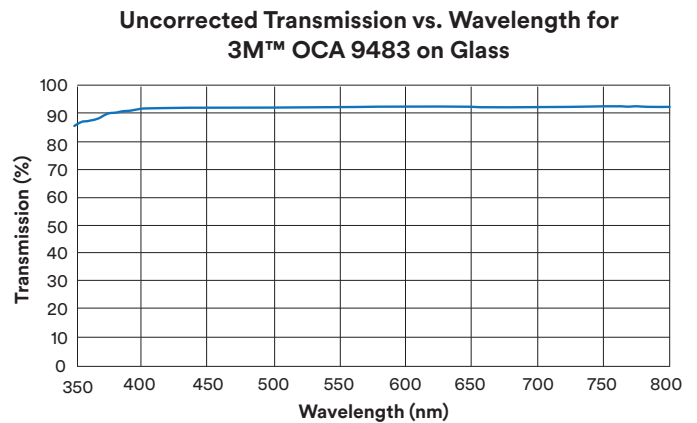
3M OCA 9483		
405 nm	532 nm	633 nm
1.4883	1.4763	1.4714

Haze:

Haze is measured according to ASTM D1003-92, 3M OCA 9483 on LCD glass

Haze
0.1%

Transmission Curve:



Typical Electrical Properties at Room Temperature:

ASTM-D150-92

Dielectric Constant:

3M OCA 9483	
Frequency (KHz)	Dielectric Constant
100	3.44
500	3.20

Suggested Lamination Process

Step 1: Remove secondary liner, and then laminate 3M OCA 9483 to first adherent substrate by roller at room temperature

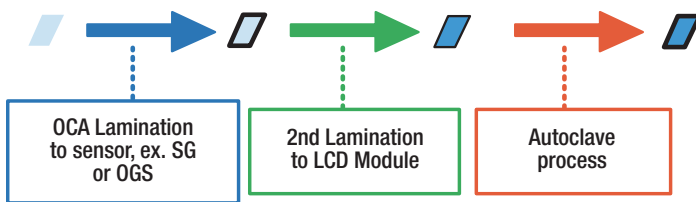
Recommendation: roller pressure 0.1 – 0.2 MPa, roller speed 0.5 – 1 m/min

Step 2: Remove primary liner, and then laminate 3M OCA 9483/first adherent to second adherent by vacuum lamination

Recommendation: Vacuum condition < 50 Pa, pressure around 0.1 – 0.2 MPa

Step 3: Autoclave process

Recommendation: 30-60°C/3-5kgf/cm²/20-30min



Storage

- Store in original packaging or plastic bag
- Avoid applying pressure or resting objects on the product to prevent marking, denting, or deforming the surface
- Wear gloves to prevent fingerprints or nail marks when handling
- Product needs to be unpacked and handled in the clean-room facility
- Store at room temperature conditions of 22 ± 8°C and 50 ± 20% relative humidity



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Regulatory

For regulatory information about this product, please 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 reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within the user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for user's method of application.

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