

# Technical Data Sheet

## OA 9352HT & HT2



### Application

OA 9352HT & HT2 is a UV curable adhesive, with good transparency, has been designed for joining optical paths and fixing in optical device.

- Connection between PLC chip (AWG, Splitters) and fiber block
- Joining optical modulators, switches, couplers
- AWG chip (Between silicon wafer and quartz glass)

### Features

- UV curable type
- High transparency
- High humidity-resistance
- Refractive Index matching to optical fiber
- Good polishing property (OA 9352HT2)
- No peeling bubble after Pressure Cooker Test
- Good adhesion to quartz glass, silicon wafer, and metals

### Properties

Properties	OA 9352HT	OA 9352HT2
Main Components	Acrylate	Acrylate
Appearance (Before/after cured)	Clear / Clear	Clear / Transparent yellow
Viscosity (@25°C)	3,500 ± 500cPs	800 ± 100cPs
Shear Strength (by BK-7) <sup>a)</sup>	≥ 200 kgf / cm <sup>2</sup>	≥ 200 kgf / cm <sup>2</sup>
Hardness (Durometer)	≥ 65 D	≥ 85 D
Shrinkage	≤ 7 %	≤ 7%
Glass Transition Temperature (Tg)	≥ 90 °C	≥ 90 °C
CTE (by TMA)	Below (Tg) 11 X 10 <sup>-5</sup> m / m / °C Above (Tg) 19 X 10 <sup>-5</sup> m / m / °C	Below (Tg) 9X10 <sup>-5</sup> m / m / °C Above (Tg) 20X10 <sup>-5</sup> m / m / °C
Outgassing to 150 °C	≤ 0.2 %	≤ 0.2 %
Degradation Temperature (Td)	282 °C	336 °C
Refractive Index (liquid, @ 25°C)	1.463 ± 0.001	1.472 ± 0.001
Transmittance (@1.1~1.6 μm)	≥ 90 %	≥ 90 %
Shelf Life (@-4°C)	6 Months	6 Months
Pressure Cooker Test <sup>b)</sup>	10 Hrs. (passed)	10 Hrs. (passed)

<sup>a)</sup> Dimension = 25 mm X 5 mm

<sup>b)</sup> Test Condition = 121 °C, 2.0 atm, 100 % R.H.

The information contained herein is believed to be reliable but is not to be taken as a representation, warranty or guarantee. Customers are urged to perform their own process and QC tests.

## Curing Condition

Process	Condition
UV-Cure Post-Cure	10 mW / cm <sup>2</sup> for 2 minutes. 85°C for 30 minutes (60 °C for 6 hrs. recommended)

- Please do not use metal halide lamp (mercury indium or mercury gallium). It is probable that poor curing and yellowing conditions will occur.
- Caution if UV Curing through Borosilicate Glass increased curing time should be considered to achieve adequate curing.

## Storage

EFIRON<sup>□</sup> OA 9352HT & HT2 will polymerize prematurely under improper storage conditions. Store these materials away from direct sunlight and presence of oxidizing agents and free radicals. Storage temperatures should be below 25°C.

- Please allow sufficient time for the container to reach room temperature before opening.

## Precaution

EFIRON<sup>□</sup> OA 9352HT & HT2 will cause skin and eye irritations. Avoid direct skin and eye contact. If contact does occur, wash area immediately with soap and water. Please refer to the MSDS information regarding this product.