



## FPC REINFORCEMENT MATERIALS

### **LOCTITE® ECCOBOND DS 3318LV AND LOCTITE® ECCOBOND EN 3410**

Henkel's LOCTITE® ECCOBOND DS 3318LV and LOCTITE ECCOBOND EN 3410 are designed for reinforcement of OLED, Chip-on-Glass (COG) and flexible printed circuit (FPC) module coating applications for LCDs. Both materials deliver high-humidity reliability performance, can be cured with UV, visible or LED light, and offer strong reinforcement even for OLED devices with large, thin screens. LOCTITE ECCOBOND DS 3318LV and LOCTITE ECCOBOND EN 3410 are halogen-free materials with high flexibility to support bending and folding. Low water vapor transmission rates (WVTR) provide good barrier protection. The combination of reliability and flexibility enables manufacturers to realize high-yield, cost-effective production for profitable results.

## KEY BENEFITS

- Fast cure
- Low viscosity
- High adhesion to polyimide and glass
- Good moisture resistance
- Excellent flexibility with high elongation capabilities



## PRODUCT PROPERTIES

| PRODUCT                                     |  | LOCTITE ECCOBOND DS 3318LV                               | LOCTITE ECCOBOND EN 3410  |
|---|--|--|---|
| DESCRIPTION                                 |  | High-reliability, highly flexible reinforcement material | Low modulus, fast UV-cure version of LOCTITE ECCOBOND DS 3318LV |
| TYPICAL APPLICATION                         |  | COG, FPC, and panel reinforcement                        | COG, FPC, and panel reinforcement                               |
| PROPERTIES BEFORE CURE                      | APPEARANCE   | Light yellow, transparent liquid                         | Light yellow  |
|   | VISCOSITY AT 15 s <sup>-1</sup> (cP)   | 968  | 680   |
| PROPERTIES AFTER CURE                       | GLASS TRANSITION TEMPERATURE, T <sub>g</sub> (°C)                              | 64   | 67  |
|   | TENSILE MODULUS (MPa)  | 250  | 100   |
|   | ELONGATION AT BREAK (%)  | > 150  | > 200   |
|   | WATER VAPOR TRANSMISSION RATE, WVTR, AT 0.3 mm THICK (g/[m <sup>2</sup> ·day]) | < 20   | < 20  |
|   | SODIUM AND CHLORIDE ION IMPURITY (ppm)   | < 10   | < 10  |
| PEEL STRENGTH ON POLYIMIDE SUBSTRATE (N/cm) |  | > 3.3  | > 5   |

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