



## ProFilm DU177E Ultraviolet Dicing Tape

ProFilm™ DU177E is a protective surface film designed to deliver consistent, precise and repeatable wafer production yields. Enhanced with superior ultraviolet adhesive coating technology, DU177E offers Total Thickness Variation (TTV) control, expandable base film, and a special low extractable release liner that reduces silicon residue by a significant margin.

- Specially formulated polyolefin film for unparalleled protection
- Coated with stable UV curable pressure-sensitive adhesive
- Features expandable chloride-free base film
- Easy die removal post ultraviolet light exposure
- Film minimizes or eliminates die rocking and other picking defects
- Film is transparent and untinted to help human and electronic vision die defect recognition

### CONSTRUCTION

ProFilm™ DU177E is constructed in three layers:

|                                 |
|---------------------------------|
| Polyolefin Base Film (6.0Mils)  |
| UV Sensitive Adhesive (1.0Mils) |
| Release Film (0.92Mils)         |

### CONFIGURATIONS

ProFilm™ DU177E is available in a variety of configurations. Standard widths include 200mm, 230mm, 250mm, 275mm, 300mm, 330mm and 400mm. Rolls are provided in splice free lengths of 100m on a 3" I.D. plastic core. Both custom widths and lengths may be available by special request. ProFilm™ DU177E rolls are polybag wrapped and individually boxed.

### SHELF LIFE AND STORAGE

ProFilm™ DU177E should be stored in a climate controlled environment where conditions do not exceed 27°C +/- 10° and 30% RH +/- 20%. This product is sensitive to UV light, so store away from heat and direct sunlight. If stored as recommended, the product will yield a shelf life of 12 months from the date of manufacture found on the core label.

### ProFilm DU177E Material Properties

<sup>1</sup> Bond Test on Stainless Steel Wafer at 180° peel angle and 300mm/min peel and stretching speed.

<sup>2</sup> UV exposure of 300 mJ/cm<sup>2</sup>

The values presented for this product are typical laboratory data and may be changed without notice.

| Property                       | Typical Value   | Test Method / Standard |
|--------------------------------|---|------------------------|
| Adhesive Strength <sup>1</sup> | 750g/25mm min before UV (20 min.)<br>20g/25mm after UV <sup>2</sup> | ASM D 1000             |
| Tensile Strength               | 13 N/mm <sup>2</sup> MD<br>9 N/mm <sup>2</sup> MD                   | ASTM D 882             |
| Elongation                     | >600% MD<br>>600% TD  | ASTM D 882             |
| Thickness w/o Release Liner    | 177µ (7.0 mils)   | ASTM D 1005            |
| Temperature Resistance         | <5 min. @ 50-60°C<br>>5 min. @ 40-45°C                              | -                      |

The below is typical data and should not be used for any specification purposes.

| DU177E Material Ionics Data |          |         |         |           |         |        |          |           |           |         |
|-----------------------------|----------|---------|---------|-----------|---------|--------|----------|-----------|-----------|---------|
| Fluoride                    | Chloride | Bromide | Nitrate | Phosphate | Sulfate | Sodium | Ammonium | Potassium | Magnesium | Calcium |
| <0.025                      | 0.231    | <0.025  | <0.025  | <0.025    | 0.05    | 0.459  | <0.025   | 0.056     | <0.025    | 0.131   |