millice
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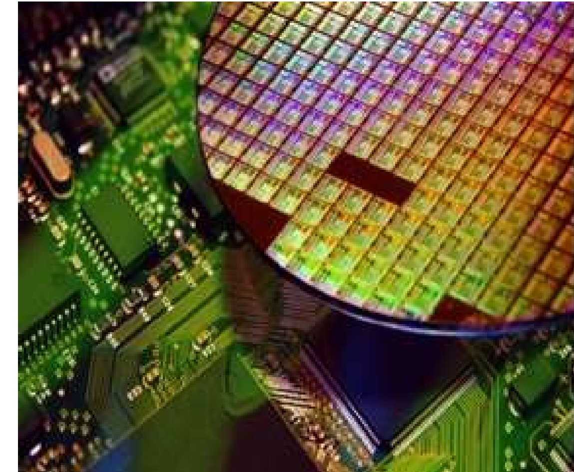
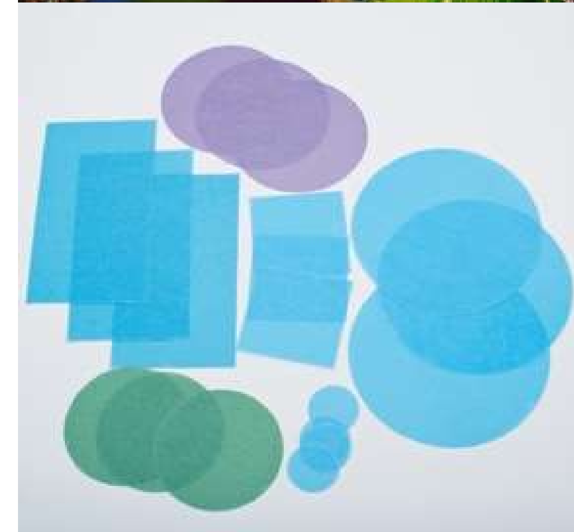
WaferGrip

微細加工用接着剤





WaferGrip adhesives are advanced composite film adhesives engineered to bond wafers, thin film heads, optics and other substrates during dicing, grinding, lapping and polishing.

WaferGrip Basic Information

WaferGrip Adhesives are currently available in three configurations:

- ✓ **Release Paper**, used for many standard applications including wafer dicing and wafer thinning.
- ✓ **Polyester Film**, used as a temporary substrate that allows the user to cut through the wafer into the substrate below.
- ✓ **Double Sided Polyester Film.**

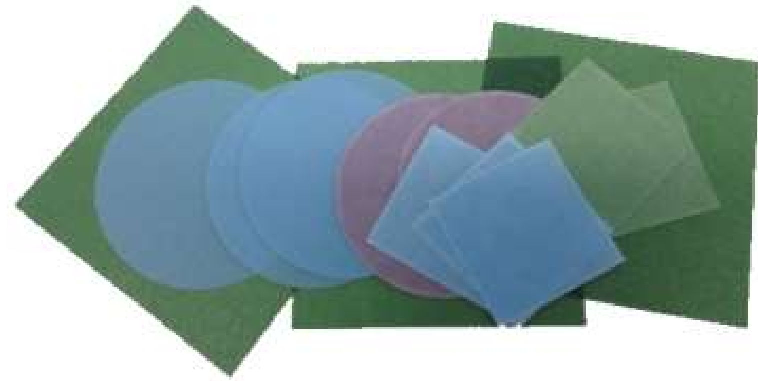
WaferGrip Adhesives are resistant to:

- Water
- IPA
- Acetone
- KOH etch solutions
- Photoresist strippers

Process Method

- WaferGrip Adhesives are removed from the release paper or Mylar then applied at room temperature to the mounting substrate (such as sapphire or glass).
- The part or wafer is placed over the WaferGrip then the entire assembly is then heated to around 110°C/230°F for 30 to 60 seconds with light pressure, preferably using a vacuum chamber for void free bonding
- To remove WaferGrip, we recommend to use our specially formulated solvent ”StripAid X Solvent”.

WaferGrip Basic Information



Shape：Rectangular and Circular
Thickness：20～50μm +/- 5 μm
Substrates：Paper, Mylar(Single, Double side)

	Test method	Standard	Conductive	High-Temp
推奨接合温度 (°C)	–	100-120	100-120	120-140
Lap Shear Strength (N/mm2)	ASTM-D-1002	2.76	2.76	3.38
引張強度 (N/mm2)	ASTM-D-3574-E	0.83	0.83	3.56
線形熱膨張 C.T.E -70°C to 49°C (μm/°C)	ASTM-E-831	133.3	129.0	147.9
電気抵抗率 (ohms-cm)	ASTM-D257	1.6E+14	8.8E+13	1.6E+14
揮発性成分	EPA Method 16	無し	無し	無し
Color	–	青	紫	緑

Applications of WaferGrip

For Dicing process

WaferGrip is used as an alternative to conventional wafer dicing tape for more demanding dicing applications. Very small die are often dislodged by the violence of the dicing process. WaferGrip has a higher shear strength that overcomes the issue of "Die Fly Off". WaferGrip is more rigid than conventional dicing tapes. As a result, it can be used for Extreme Precision Dicing.

For Polishing process

In the polishing process such as compound semiconductors, wafer fixation is more important than silicon. This is because these materials are harder and more brittle, which increases the risk of wafer breakage and loss of dimensional accuracy due to misalignment of the cutting position. By using WaferGrips with stronger adhesive strength than conventional tapes, it is possible to position the wafer accurately and firmly fix it.

For DRIE

DRIE (Deep Reaction Ion Etching) process is a process used in the manufacture of MEMS. The process is to perform a shallow etch followed by the deposition of a coating. The coating allows the etching of the bottom of the trench but protects the side wall of the trench. WaferGrip adhesives are resistant to etch solutions.