Brewer Science® WaferBOND® CR-200

Temporary Wafer Bonding Material

WaferBOND® CR-200 temporary bonding material enables back-end-of-line processing of ultrathin wafers with standard semiconductor equipment

Benefits

- Process ultrathin wafers using standard lithographic, passivation, and metallization techniques and tooling
- Create interconnects before or after thinning
- Preserve delicate structures or III-V devices

Process Suggestions

Coating Parameters

Spin Speed: 1000 to 2500 rpm
Acceleration: 1000 rpm/s
Spin Time: 30 to 60 s

Hot Plate Bake Process (Nominal Conditions)
Proximity Bake

180 °C at 3000 µm for 1 minute
180 °C at 1500 µm for 1 minute
180 °C at 500 µm for 2 minutes

- or -

Contact Bake

120 °C for 2 minutes
180 °C for 2 minutes

Bonding Process

Temperature: 180 °C
Time: 2 minutes
Vacuum: 10^{-4} torr
Pressure: ~15.5 psi (flat wafers)

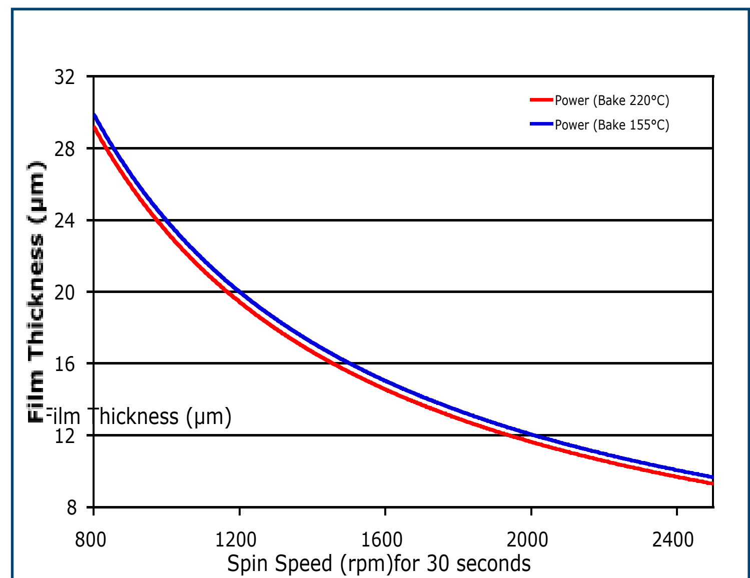
Debonding Process (two-bath process)

Bath 1: WaferBOND® Remover at 110 °C to 130 °C for 1 to 4 hours, or until debonded
Bath 2: Clean up with WaferBOND® Remover at 70 °C to 110 °C for 15 minutes to 1 hour
Mild circulation is recommended
Rinse: IPA
Dry

Storage Conditions

Store at room temperature (16°C to 26°C)

Spin Speed Curve



Chemical Resistance Testing with No Degradation

Chemistry	Bath Temp.	Time
Acetone	25°C	25 min
NMP	85°C	60 min
6N HCl	60°C	30 min
15% H_2O_2	60°C	40 min
30% NH_4OH	25°C	30 min
10% KI in H_2O	25°C	20 min
EtOH	25°C	5 min
MeOH	25°C	5 min
IPA	25°C	5 min
Cyclohexanone	25°C	5 min
Ethyl Lactate	25°C	5 min
PGMEA	25°C	5 min
PGME	25°C	5 min
30% HCl	25°C	90 min
70% HNO_3	25°C	60 min

Note: An HMDS pretreatment is recomended for the following exposure recipe:

0.26N TMAH	60°C	30 min
30% KOH	85°C	60 min

All statements, technical information and recommendations contained herein are based on tests we believe to be accurate, but the accuracy or completeness thereof is not guaranteed and the following is made in lieu of warranty expressed or implied. Neither the seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising from the use or inability to use the product. Before using, user shall determine the suitability of the product for his intended use, and user assumes all risk and liability whatsoever in connection therewith. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of the seller and manufacturer.

F.6.6.3000.C Effective Date: 01/06/2010