Bonding Films

For Electronics Assembly

Reliable bond strength with the die-cut precision of film and the speed of hot melt adhesive

Fast bonding, high-strength adhesive film for metal-to-plastic bonds

Benefits of film adhesive

- Controlled and consistent thickness
- Die-cut for precise fit, shape and size

Benefits of hot melt adhesive

- Bonds fast in 2-5 seconds with high strength
- Minimal oozing

3M™ Bonding Film attributes

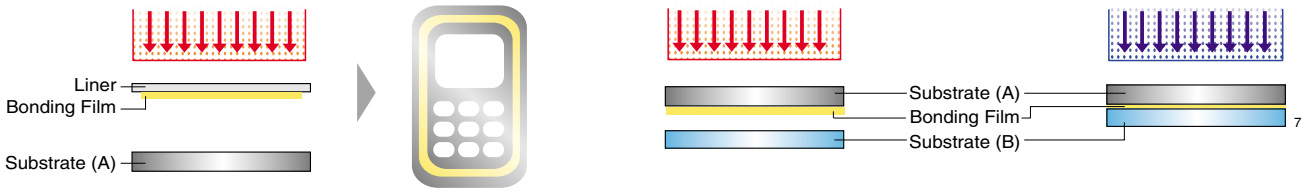
- High adhesion to both metal and plastic substrates
- Flexibility to withstand shock
- Flows and compensates for substrate-to-substrate tolerance gaps
- Bonds narrow widths

3M™ Bonding Films

Product		615		615S		620		668
Key Features		Good adhesion to a variety of substrates		615 with non-woven carrier, exhibits minimal oozing		3 layer construction 615/PET (dielectric)/615		Slight tack, high temperature resistance
Base Resin		PET		PET		PET		PET
Color		Tan		Tan		Tan		Tan
Bond Time (secs)		2-5		2-5		2-5		2-5
Bondline Temp (°C)		138		138		138		160
Film Thickness	mils	4	8	6	9	4	6	4
	mm	0.10	0.20	0.15	0.22	0.10	0.155	0.10
Tensile Strength/ Aluminum (PSI)		810		900		825		860
180° Peel Strength (piw)		5 on Al		16 on Al		16 on SS		20 on SS
2 lb. Dead Load Heat Resistance °C		102		102		102		127

Converting Process

1 *3M™ Bonding Film* → 2 *Slit into smaller rolls* → 3 *Die-cut into desired shape*



4 ***Pre-tacking***
Temp: 60-120°C
Duration: 3-5 secs

5 ***Bonding***
Temp: 100-180°C
Duration: 10-20 secs

6 ***Cooling down***
Temp: Cool to 50°C and below
Duration: 15-25 secs

Parameters are general guidelines only. Please consult your local 3M Technical Service Engineer.

3M™ Bonding Film quickly and securely bonds metal to plastic

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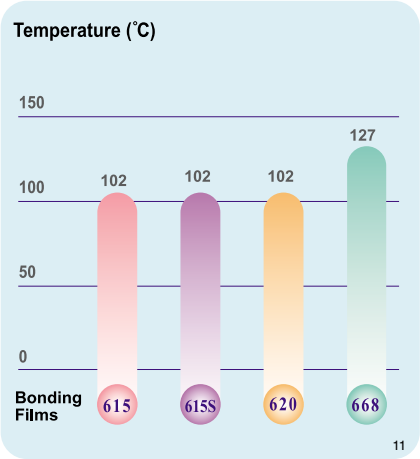
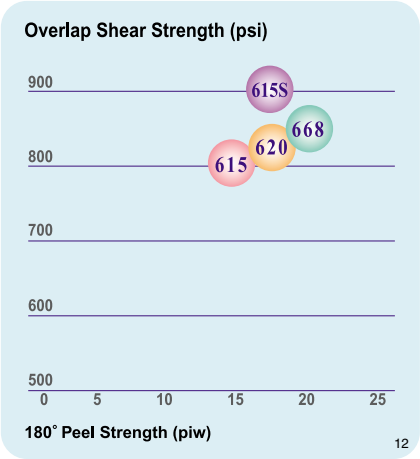
2 lb. Deadload Heat Resistance



Relative Strength



Bonding Equipment

Controls pressure, temperature, and rates of bonding and cooling.

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3M

Electronics

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