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NAN YA PLASTICS CORPORATION
ELECTRONIC MATERIALS DIVISION.
COPPER CLAD LAMINATE DEPARTMENT
NO. 201. TUNG HWA N. ROAD, TAIPEI, TAIWAN.

NP-535B

■ FEATURES

- Super low dissipation factor at high frequency range
- Rheology of resin controlled to benefit the lamination of the boards.
- Flammability meets UL 94 V-0

■ PERFORMANCE LIST

Characteristics	Unit	Conditioning	Typical Values	SPEC	Test Method
Permittivity 10GHz	-	C-24/23/50	3.50	-	2.5.5.13
Loss tangent 10GHz	-	C-24/23/50	0.0031	-	2.5.5.13
Volume resistivity	MΩ-cm	C-96/35/90	$5x10^9$	10^6 ↑	2.5.17
Surface resistivity	MΩ	C-96/35/90	$5 x10^7$	10^4 ↑	2.5.17
Moisture absorption	%	D-24/23 <0.53mm	0.10	-	2.6.2.1
Flammability	-	C-48/23/50	94V0	94V0	UL94
Peel strength 1 oz	lb/in	288℃x10" solder floating	5.5~6.5	2.5 ↑	2.4.8
Heat resistance	SEC	288℃ solder dipping	300 ↑	10 ↑	2.4.13.1
Glass transition temp	℃	DMA	210↑	N/A	2.4.25
Coefficient of thermal expansion Z-axis before Tg Z-axis after Tg	 ppm/℃ ppm/℃	 TMA TMA	 25-40 160-210	 N/A	 2.4.24
Glass transition temp	℃	DMA	230	N/A	2.4.25
Td (5% weight loss)	℃	TGA, 10℃/min	420	325 ↑	2.4.24.6

For reference only.

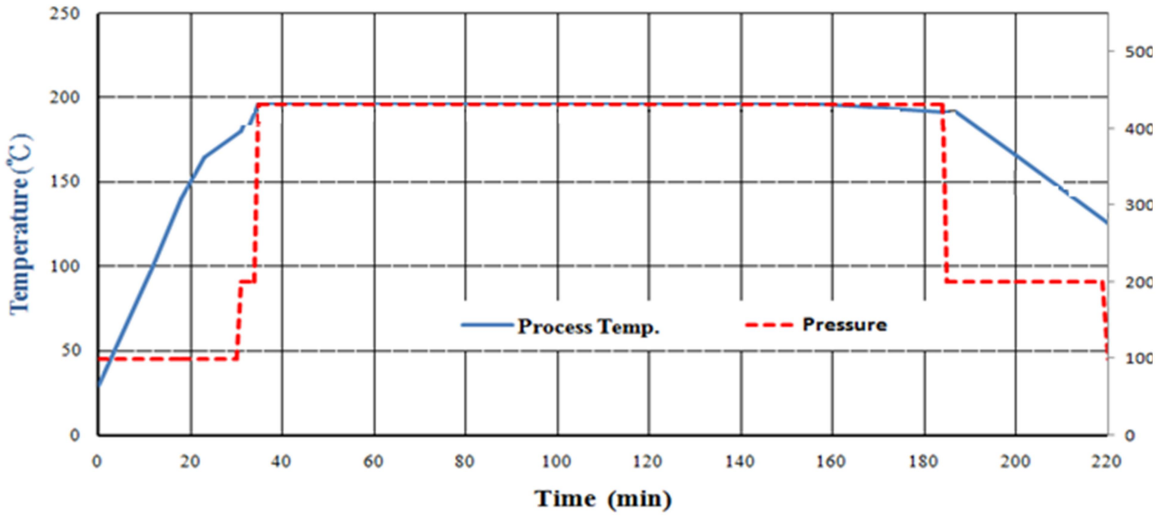
■ PRODUCT THICKNESS

Standard Thickness		
Glass style	After Pressed Thickness (per ply)	
	mm	Mil
1037	0.050±0.004	2.0±0.15
1067	0.065±0.005	2.5±0.2
1078	0.102±0.008	4.0±0.3
2113	0.170±0.010	6.7±0.4

Requirement for not listed glass fabrics types, please contact our technical customer service team for discussion in advance.

Storage Condition : 20℃ 50% RH for 3 months
: Max 5℃ for 6 months

Recommended press cycles:



Suggestions:

1. Heating rate (110℃~150℃)
   3.0℃/min is acceptable.
   3.5℃/min is preferred.
2. Product temperature should be kept at higher **190℃** for more than 90 min to fully cure resin.
3. Pressure should be up to **450psi**, high pressure is better for resin flowing and filling in the gaps.
4. Pressure should be kept below 200psi during cooling period.
5. Vacuum should be kept for at least 30 min from start.
6. Cushion for pressure evenness is needed.