

## DS-7402H

(ANSI: FR-4) HIGH Tg GREEN LAMINATE

### Features

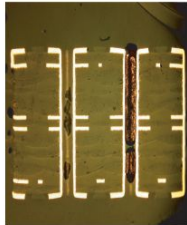
- Halogen-free, antimony-free, and red phosphorus-free
- Excellent thermal performance
- High Tg (above 170°C)
- Low z-axis CTE
- Good reliability at harsh environment

### Applications

- High layer count boards
- Computer, instrumentation, automotives and network servers

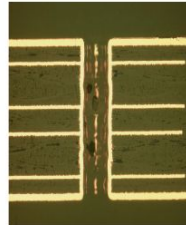
### General Properties

#### ● Interconnection Stress Test Result



- Test Condition
  - 6L PCB
  - 1,000 cycles
  - Thickness 1.6mm
  - Drill Hole Size 250mic
  - Pitch 39.4mil
- Test Result
  - 1,000 cycles OK
  - No crack

#### ● Lead-free Soldering Test Result



- Test Condition
  - 6L PCB
  - THB(85°C, RH85%)
  - 48hr→Reflow 260°C
  - 5 cycles
- Test Result
  - No delamination
  - No crack

Property	Unit	Test Condition	Typical Value	Test Method
Tg	°C	DSC	170	IPC-TM-650.2.4.25c
		TMA	170	IPC-TM-650.2.4.24c
CTE Z-axis	ppm/°C	Ambient to Tg	40	IPC-TM-650.2.4.41
Z-axis Expansion	%	50°C to 260°C	2.8	IPC-TM-650.2.4.41
Decomposition Temperature (5% wt loss)	°C	TGA	380	IPC-TM-650.2.3.40
T-260	min	TMA	120	IPC-TM-650.2.4.24.1
T-288	min	TMA	15	IPC-TM-650.2.4.24.1
Dielectric Constant (Resin Content 50%)		C-24/23/50 (1GHz)	4.4	IPC-TM-650.2.5.5.9
Dissipation Factor (Resin Content 50%)		C-24/23/50 (1GHz)	0.014	IPC-TM-650.2.5.5.9
Peel Strength (Standard profile 1oz)	N/mm	Condition A	1.7	IPC-TM-650.2.4.8
Water Absorption	%	E-24/50+D-24/23	0.12	IPC-TM-650.2.6.2.1

\* IPC-4101B/94

\* Test specimen thickness: 1.0mm (7628x5)

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### Prepreg Parameter

[ Thin Core ]

Thickness (mm)	Glass Fabric	Copper Foil spec.
0.06	106	1/1,2/2
0.10~0.13	2116	
0.15	1506	H/H, 1/1
0.2	2116 x 2 / 7628 x 1	H/H, 1/1
0.3	1506 x 2 / 2116 x 3	1/1
0.35~0.40	7628 x 2	H/H, 1/1
0.60	7628 x 3	H/H, 1/1
1.60	7628 x 8	H/H, 1/1

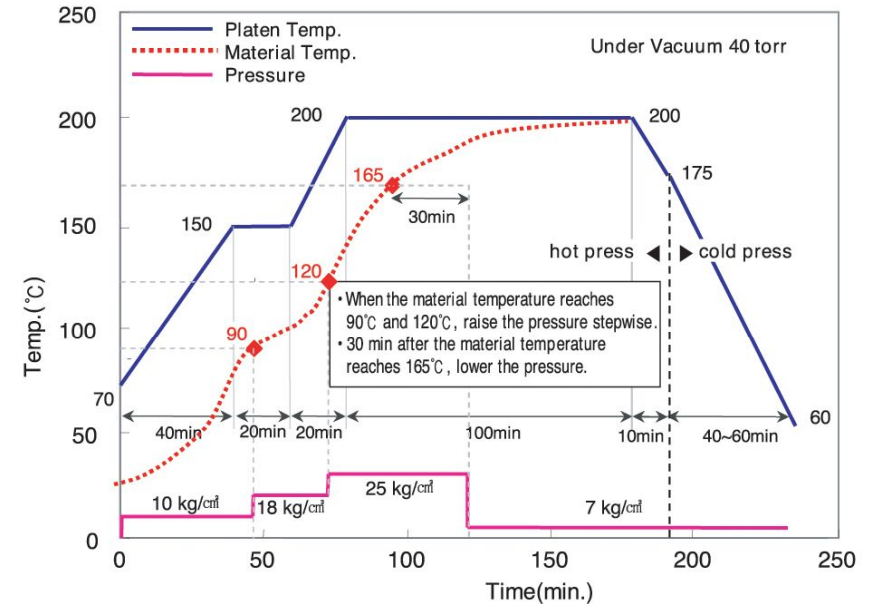
- 0:No copper, H:0.5 oz, 1.1 oz, 2.2 oz
- 1/1:1oz copper foil on one side / 1oz on the other side
- Thickness data are typical values.
- Each value has variation of about ±(0.1~0.2)mm.

[ Bonding Sheet ]

Glass Fabric	Resin Content	Thickness (mm)
106	72%	0.045
1078	58~64%	0.05,0.06
1080	62~70%	0.05~0.07
3313	55~59%	0.08~0.09
2116	50~60%	0.10~0.13
7628	42~51%	0.17~0.20

\* Data of Resin Content and Thickness are typical values.  
Each value has variation of about ±3%,0.03 mm.

### Recommended Press Cycle



- Material heating rate (80~130°C) : 1.3 ~ 2.0 °C/min
- Curing condition : above 165°C 90min~