

HPA7781-S is made from fire resistant phenolic resin impregnated glass fabric.

Referred to BMS 8-226, Type II, Class3B, DP7781.

DESCRIPTION

- Self-adhesion to honeycomb core for sandwich panel application
- Short and simple curing cycle
- Excellent drum peel strength
- Medium tack and good drapability
- Various cure process (autoclave, vacuum bag oven)

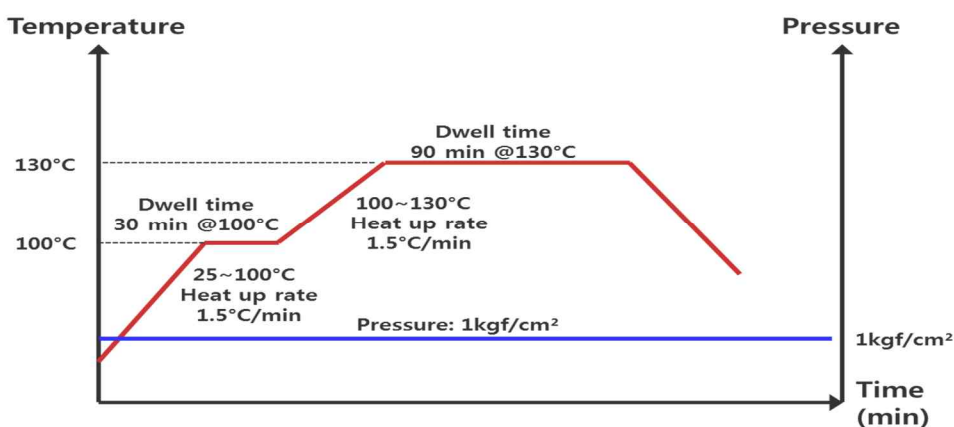
PHYSICLA PROPERTIES

Reinforcement

MATERIALS	PROPERTIES	VALUE	TEST METHOD
Glass Fabric	Style	181-77	-
	Weave	8 shaft satin	-
	Thickness (mm)	0.25 ± 0.025	-
	Fiber Areal Weight (g/m ²)	299 ± 18	BSS 7336 Method I
	Count (Count/in.)	Warp	57
		Fill	54
Glass Prepreg	Resin Content (%)	42 ± 2	BSS 7336 Method I
	Volatile Content (%)	Max. 7.0	BSS 7337 Method I
	Resin Flow (%)	25 ± 5	BSS 7335 Method I Type I
	Prepreg Gel Time (sec.)	170 ± 20	BSS 7276 Method II

CURING CYCLE

Typical Bagging cure cycle is shown as below.



PANEL PROPERTIES

Panel Lay-up Pattern

[(HPA7781-S 0°)² / Nomex Honeycomb]_s

Core

PROPERTIES	REQUIREMENT	REMARK
Thickness (mm)	8.86	Nomex Honeycomb Core (Hexagonal)
Density (lb/ft ³)	3	
Cell Size (in.)	1/8	

Mechanical Properties

PROPERTIES	VALUES	TEST METHOD
Drum Peel Strength (in.-lbf/3in.)	53-60	ASTM D 1781

Flammability

PROPERTIES	REQUIREMENTS	VALUES	TEST METHOD
60 sec. Vertical	Self-Extinguish Time (sec.)	< 5	BSS 7230 Method F1
	Burn Length (in.)	< 4.5	
	Drip Extinguish Time (sec.)	No Drip	

Heat Release Rate

PROPERTIES	REQUIREMENTS	VALUES	TEST METHOD
Total Heat Release After 2 min. (KW*min./m ²)	< 65	48.9	BSS 7322
Peak Heat Release Rate During the 5 min. Period (KW/m ²)	< 65	53.9	

Smoke Density

PROPERTIES	REQUIREMENTS	VALUES	TEST METHOD
Maximun Smoke Density during 4 min.	< 200	3	BSS 7238

SHELF LIFE

STORAGE TEMPERATURE	SHELF LIFE
Room Temperature 23°C	10 day
Frozen below -18°C	6 month

HANDING & USE

Prepreg which is impregnated with fire resistant phenolic resin system must be stored in a freezer. When material is removed from the freezer, it is essential that the roll be allowed to thaw and reach room

temperature before the plastic bag is opened. For example, the thaw time for a 20 linear meter roll taken from -18°C(0°F) storage into a 21°C(70°F) room is typically between 4 and 6 hours. Condensation may form on the surface of the material if it is not fully thawed. Moisture within a curing laminate may be detrimental to final part quality and appearance. When materials are returned to the freezer, they must be resealed to prevent ingress of moisture.