



CYCOM® 2400L/3K-70-PW Phenolic Resin System

DESCRIPTION

CYCOM® 2400L/3K-70-PW is a low tack carbon prepreg system suitable for aircraft interior components and other transportation applications where low flammability is required. This material is a lightweight plain weave prepreg intended for use adjacent to honeycomb in the manufacture of sandwich panels. Its unique construction can be applied to weight critical components.

CYCOM 2400L/3K-70-PW prepreg is intended for but not limited to use in the manufacture of components via press processing. Standard widths include 48 and 63.5 inches.

FEATURES & BENEFITS

- Ohio State University (OSU) heat release well below current regulations
- Excellent fire, smoke and toxicity (FST) properties
- Self-adhesive
- Lightweight plain weave carbon prepreg

SUGGESTED APPLICATIONS

- Transport interior applications

CHARACTERISTICS

Table 1 | Prepreg Properties

Resin solids content, % by weight	41 ± 3
Resin flow ¹ , %	≥ 10
Volatiles ² , %	≤ 7
Gel time ² , minutes	< 5

¹ Test conditions: 50 psi, 250°F (345 kPa, 121°C)

² Test conditions: 10 minutes, 250°F (121°C)

³ Test conditions: 250°F (121°C)

Table 2 | Fabric Properties

Weave Style	Plain
Yarn Count (warp x fill)	12.5 x 12.5 ends/inch
Fiber Type	3000 filament PAN
Weight	5.7 oz/yd ²
Thickness	9 mils

Table 3 | OSU Heat and Smoke Release Properties

Cure Profile	Press, in hot/out hot, 260°F, 1 hour, 50 psi
Test Specimen	1 ply/core/1ply sandwich, Nomex core, 1/8" cell, 3 lb density, 0.125" thickness
Average peak heat release, KW/m ²	16.7
Average 2 minute total heat release, KW-min/m ²	18
Average Ds at 4 minutes	5

PROPERTIES

Table 4 | Mechanical Properties: Crushed core process, in hot/out hot

Sandwich Panel Construction (0.5 in thick Nomex, 3 lb/ft ³ , 0.125 in cell)	Temperature, °F	Cure Time, min.	Peel Strength, in-lb/3 in	Flexural Strength, ksi	P/Y Deflection
1 ply / core / 1 ply	320	8	12.2	26.3	72.6
1 ply / core / 2 ply	320	8	28.1	33.4	136.9
1 ply / core / 1 ply	285	16	15.8	29.5	65.9
2 ply / core / 2 ply	285	16	41.7	34.8	172.3
1 ply / core / 1 ply	290	12	15.1	27.9	71.5
2 ply / core / 2 ply	290	12	38.4	32.5	171.5

Table 5 | Mechanical Properties: MOP process, in cold/out cold

Sandwich Panel Construction	Pressure, psi	Temperature, °F	Cure Time, min.	Peel Strength, in-lb/3 in	Flexural Strength, ksi
1 ply / core / 1 ply (0.50 in. thick Nomex, 3 lb/ft ³ , 0.125 in. cell, cured to 0.515 in. stops)	25	250	60	8.5	22
2 ply / core / 2 ply (0.47 in. thick Nomex, 3 lb/ft ³ , 0.125 in. cell, cured to 0.500 in. stops)	20	250	60	20.3	32.3

Peel and flexural strength tested per BMS 8-274

APPLICATION NOTES

Cure Cycle

A typical cure cycle is 260 ± 10°F for 60 to 90 minutes. Alternate cure cycles are possible.

PRODUCT HANDLING AND SAFETY

Cytec Engineered Materials recommends wearing clean, impervious gloves when working with phenolic resin systems to reduce skin contact and to avoid contamination of the product.

Materials Safety Data Sheets (MSDS) and product labels are available upon request and can be obtained from any Cytec Engineered Materials Office.

DISPOSAL OF SCRAP MATERIAL

Disposal of scrap material should be in accordance with local, state, and federal regulations.

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