

> CYCOM[®] 5250-4 PREPREG SYSTEM

TECHNICAL DATA SHEET



DESCRIPTION

CYCOM[®] 5250-4 is a 350°F to 400°F (177°C to 204°C) curing bismaleimide resin with a service temperature range of -75°F to 400°F (-59°C to 204°C). CYCOM 5250-4 is specifically formulated for use in primary aircraft structures. In addition, a variety of secondary structural components can take advantage of the increased performance from using high-strain carbon fibers and the improved damage-resistance this system provides.

CYCOM 5250-4 is available with either carbon fiber or glass fiber reinforcement in unidirectional tape, woven broadgood and roving forms.

FEATURES & BENEFITS

- Maximum continuous service temperature up to 400°F (204°C)
- Short-term service temperature up to 450°F (232°C)
- Superior hot/wet properties at 220°F to 375°F (104°C to 190°C)
- Excellent toughness
- Void-free laminates
- High temperature resistance
- Low thermal conductivity
- Versatile cure
- Excellent compression strength properties after impact
- Shop life greater than 28 days at room temperature
- Fluid/solvent resistant

SUGGESTED APPLICATIONS

Primary and secondary aircraft structure including:

- Engine nacelles
- Fuselage skins and stiffeners
- Wing and stabilizer spars and skins
- Other critical load-bearing components

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CHARACTERISTICS

Other

This resin system has successfully been applied to Nicalon and Tyranno silicon carbide fibers.

Shelf Life and Shop Life

Shelf life in sealed containers is greater than 12 months at 0°F (-18°C) or greater than three months at 40°F (4°C). To prevent moisture pick up, a sealed container should not be opened until the prepreg reaches ambient temperature. Shop life is greater than 28 days at room temperature.

Prepreg Form

The prepreg is supplied as (1) unidirectional tape up to 60 in (152.3 cm) wide, or slit to your requirements, on 10 in (25.4 cm) diameter cardboard cores; (2) woven fabric up to 60 in (152.3 cm) wide, or slit to your requirements, normally supplied on 3 in (7.6 cm) diameter cardboard core. All materials are shipped in sealed poly bags.

Table 1 | Typical Prepreg Physical Characteristics

Fiber	Resin Content % by weight	Volatiles % weight max.	Flow % weight
Carbon			
Unidirectional, 12 K	33	2	14
Woven	38	2	20
Roving	33	2	16
Glass			
Style 7781	38	2	24
Astro Quartz (581)	32	2	18
S2 (6781)	37	2	18
Test Procedure			
Carbon	QC-PT-37	QC-PT-16	QC-PT-1
Glass	QC-PT-13		
Test Temperature			
°F (°C)		250 (121)	350 (177)
Test Pressure			
psi (KPa)			100 (689)
Test Time			
Minutes		30	Gel + 5 minutes

Resin content may be modified to your specifications. Contact Cytec Engineered Materials Technical Services.

Test procedures are available upon request.

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PROPERTIES

Table 2 | Technical Data, Neat Resins, Standard Cure + Standard Post-Cure

Property	Value	Test Procedure
Cured Density, lb/in ² (g/cc)	0.045 (1.25)	QC-PT-55
Dry Tg, °F (°C) *	572 (300)	QC-PT-22
Wet Tg, °F (°C) *	392 (200)	QC-PT-22
Gel Time at 350°F (177°C) in nitrogen atmosphere, minutes	65 nominal	QC-PT-87
Solvent resistance, 1000 hours exposure at 160°F (71°C), % weight gain		
Water	4.2	Cytec
JP4	0.6	
JP5	0.5	
Hydraulic Fluid (Skydrol)	0.6	
Lubricant (MIL-L-23699)	0.5	
170 hours exposure at room temperature, % weight gain		
Paint Stripper (Turco 5351)	1.8	Cytec
M.E.K.	0.2	
Anti-icing Fluid	0.3	
Tensile Properties at Room Temperature		
Strength, ksi (MPa)	14.9 (103)	ASTM D3039
Modulus, Msi (GPa)	0.67 (4.6)	
Strain, micro-in/in (%)	48,000 (4.8)	
Flexure Properties at Room Temperature		
Strength, ksi (MPa)	23.6 (163)	ASTM D790 Cytec
Strain, micro-in/in (%)	45,000 (4.5)	
Strain Energy Release Rate, G _{1c} in-lb/in ² (J/m ²)	0.80 (140)	Cytec
Notch Sensitivity, K _{1c} ksi-in ^{1/2} (MPa/m ^{1/2})	0.93 (0.85)	Cytec
Charpy Impact in-lb/in ² (KJ/m ²)	97 (17)	Cytec
Coefficient of Thermal Expansion (5250-4/IM7 unidirectional laminate)		
° 11 (μ-in/in/°F)	-0.90	
° 22 (μ-in/in/°F)	16.7	
Thermo-oxidative Stability (5250-4/G30-500-8HS laminate) exposure 450°F (232°C) with atmosphere replacement, % prepreg weight loss		
1000 hours	1.7	Cytec
2000 hours	4.6	
3000 hours	9.0	

* **NOTE:** Tg data is not applicable for U.S. export control classification or licensing. For export-related information please contact us.

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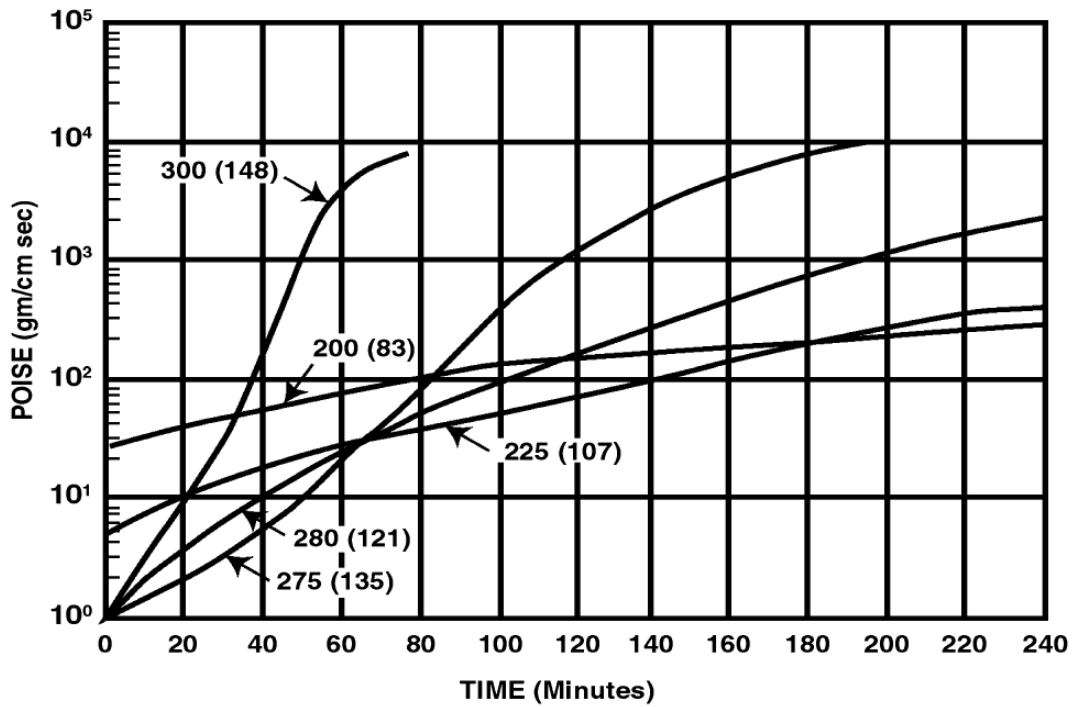


Figure 1 | CYCOM 5250-4 Isothermal Holds °F (°C), Test Procedure QA-AP-1

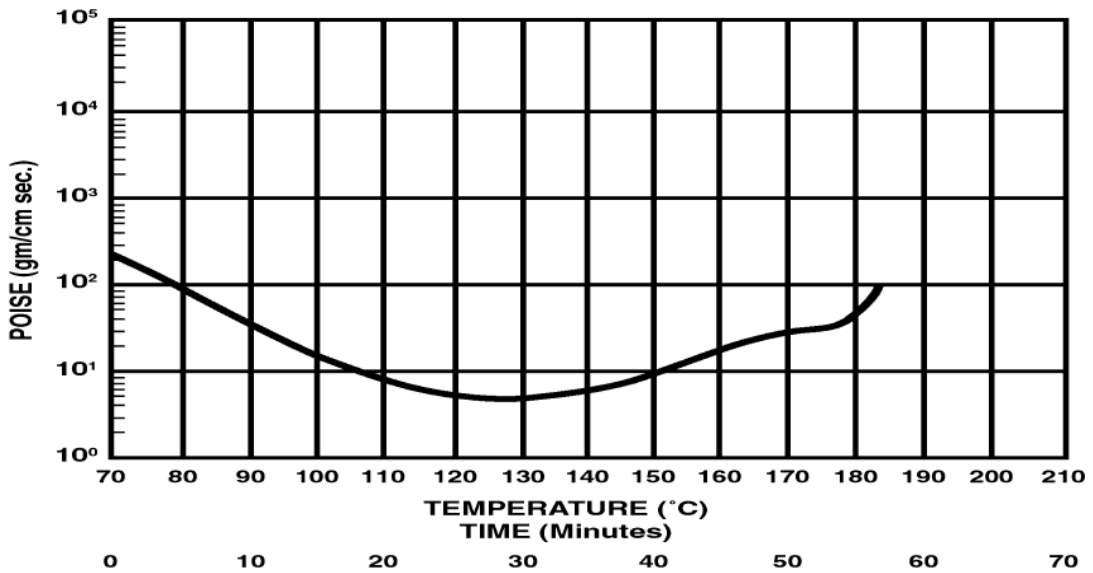


Figure 2 | CYCOM 5250-4 Typical Viscosity Profile, Test Procedure QA-PT-1, 3.6°F (2°C)/minute

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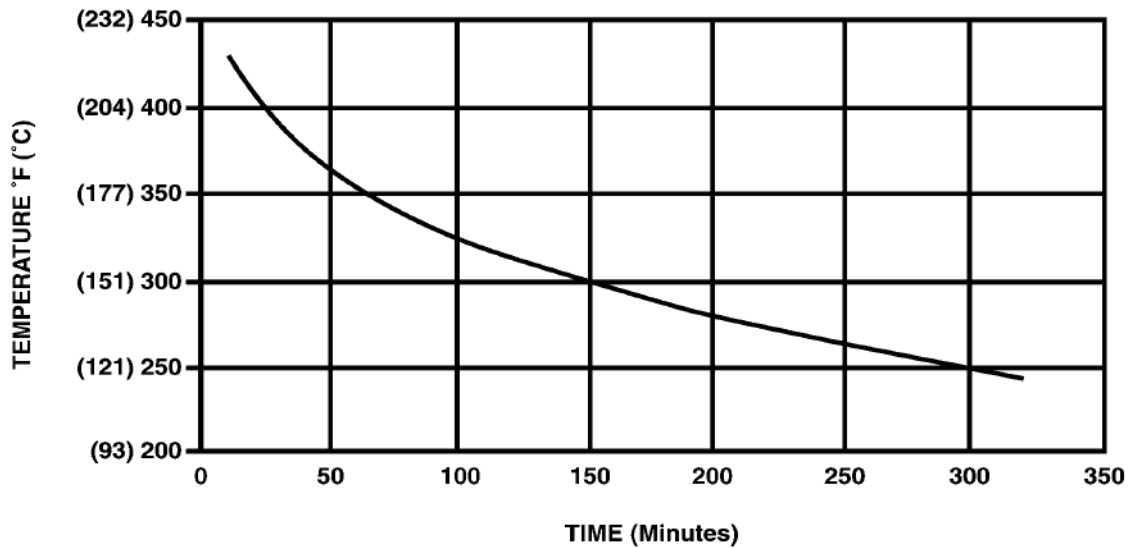


Figure 3 | CYCOM 5250-4 Gel Time Versus Temperature (Test Tube Method) Nitrogen Atmosphere

Table 3 | Mechanical Properties – Carbon Fiber, Standard Cure + Standard Post-Cure

Property	Orientation	Test Temperature °F (°C)	IM-7	G40-800
Open Hole Tensile Strength, ksi (MPa) (SACMA SRM-5-88) W/D = 6	[+45,0,-45,90]2s	-67 (-55)	65 (448)	-
		75 (24)	65 (448)	-
		350 (177) Wet	65 (448)	-
Modulus, Msi (GPa)	[+45,0,-45,90]2s	-67 (-55)	9.3 (64)	-
		75 (24)	9.1 (63)	-
		350 (177) Wet	8.6 (59)	-
Strength, ksi (MPa) W/D = 4	[+45,90,-45,0]3s	-67 (-55)	-	77 (531)
		75 (24)	-	76 (524)
Modulus, Msi (GPa)	[+45,90,-45,0]3s	-67 (-55)	-	8.4 (58)
		75 (24)	-	8.2 (57)
Strength, ksi (MPa)	[+,-,90,0,0,+,-, 0,0,+,-,0]s	75 (24)	105 (723)	-
		350 (177)	100 (690)	-
Open Hole Compression Strength, ksi (MPa) (SACMA SRM-3-88) W/D = 6	[+45,0,-45,90]2s	-67 (-55)	52 (359)	-
		75 (24)	45 (310)	46 (317)
		300 (262) Wet	38 (262)	-
Modulus, Msi (GPa)	[+45,0,-45,90]2s	-67 (-55)	8.3 (57)	-
		75 (24)	8.2 (57)	8.2 (57)
		350 (177) Wet	7.4 (51)	-
Strength, ksi	[+,-,90,0,0,+,-, 0,0,+,-,0]s	75 (24)	61 (420)	-
		350 (177) Wet	51 (351)	-
		375 (191) Wet	44 (303)	-
		450 (232)	47 (324)	-

Fiber Volume = 60%, Wet = 1.1% weight gain

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Table 4 | Mechanical Properties – Carbon Fiber, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	IM-7	G40-800	G30-500
Tensile 0° Strength, ksi (MPa) (ASTM D3039)	-67 (-55)	420 (2897)	400 (2758)	-
	75 (24)	308 (2618)	360 (2480)	320 (2208)
	350 (177)	370 (2550)	350 (2411)	-
	350 (177) Wet	330 (2278)	-	-
	450 (232)	370 (2550)	-	-
Tensile 0° Modulus, Msi (GPa)	-67 (-55)	24.2 (169)	24.0 (165)	-
	75 (24)	23.5 (162)	-	20.5 (141)
	350 (177)	23.5 (162)	-	-
90° Strength, ksi (MPa) (ASTM D3039)	-67 (-55)	9.1 (63)	-	-
	75 (24)	9.5 (66)	10 (69)	-
	350 (177) Wet	4.0 (28)	-	-
90° Modulus, Msi (GPa)	-67 (-55)	1.4 (9.7)	-	-
	75 (24)	1.4 (9.7)	1.3 (9.6)	-
In-Plane Shear Strength, ksi (MPa) (ASTM D3518)	-67 (-55)	14.7 (102)	-	-
	75 (24)	15.0 (103)	-	-
	300 (119) Wet	12.1 (83)	-	-
	350 (177) Wet	11.2 (77)	-	-
Poisson's Ratio	75 (24)	0.70	-	-
	300 (149) Wet	0.81	-	-
Shear Modulus, Msi (GPa)	75 (24)	0.85 (5.9)	-	-
	300 (149) Wet	0.37 (2.5)	-	-

Fiber Volume = 60%, Wet = 1.1% weight gain

Table 5 | Mechanical Properties – Carbon Fiber Unidirectional, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	IM-7	G40-800
Compression 0° Strength, ksi (MPa) (ASTM D695 MOD)	75 (24)	235 (1620)	215 (1481)
	325 (163) Wet	175 (1206)	150 (1034)
	350 (177)	190 (1310)	-
	350 (177) Wet	140 (966)	-
Compression 0° Modulus, Msi (GPa)	75 (24)	23.0 (158)	23.5 (162)
	350 (177)	23.0 (158)	-
90° Strength, ksi (MPa) (ASTM D3410)	-67 (-55)	46 (317)	-
	75 (24)	36 (248)	-
	350 (177) Wet	35 (241)	-
90° Modulus, Msi (GPa)	-67 (-55)	1.6 (11.0)	-
	75 (24)	1.4 (9.7)	-
	350 (177) Wet	1.3 (9.0)	-

Fiber Volume = 60%, Wet = 1.2% weight gain

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Table 6 | Mechanical Properties – Carbon Fiber Unidirectional, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	IM-7	G40-800	G30-500
0° Flexural Strength, ksi (MPa) (ASTM D790)	75 (24)	250 (1723)	-	260 (1794)
	350 (177)	190 (1310)	-	-
	375 (191)	125 (861)	-	-
	450 (232)	170 (1170)	-	-
0° Flexural Modulus, Msi (GPa)	75 (24)	22.7 (157)	-	18.0 (124)
	350 (177)	21.8 (149)	-	-
	375 (191)	21.4 (147)	-	-
	450 (232)	20.9 (144)	-	-
90° Flexural Strength, ksi (MPa) (ASTM D790)	75 (24)	13.4 (92)	-	-
	350 (177)	11.5 (79)	-	-
	450 (232)	10.7 (74)	-	-
90° Flexural Modulus, Msi (GPa)	75 (24)	1.3 (9.0)	-	-
	350 (177)	1.2 (8.3)	-	-
	450 (232)	1.1 (7.8)	-	-
0° Short Beam Shear Strength, ksi (MPa) (ASTM D2344)	75 (24)	20.2 (139)	-	18.1 (125)
	350 (177)	14.2 (98)	-	8.5 (59)
	375 (191) Wet	10.4 (72)	-	-
	450 (232)	11.3 (78)	-	-

Fiber Volume = 60%, Wet = 1.1% weight gain

Table 7 | Mechanical Properties – Carbon Fiber Unidirectional, Standard Cure + Standard Post-Cure

Property	Test Condition	IM-7	IM-8	G40-800	AS-4
Compression After Impact (SACMA SRM-2)	Impact				
Residual Strength, ksi (MPa)	1.0 in-lb/in	36 (248)	33 (227)	35 (241)	37 (255)
	1,500 in-lb/in	31 (214)	-	31 (214)	31 (214)
Strain, micro-in (%)	1.0 in-lb/in	4900 (0.49)	3900 (0.39)	-	5900 (0.59)
	1,500 in-lb/in	3600 (0.36)	-	-	5100 (0.51)
Damage Area, in² (cm²)	1.0 in-lb/in	1.0 (6.4)	1.5 (9.6)	1.4 (9.0)	0.9 (5.8)
	1,500 in-lb/in	1.8 (11.5)	-	2.7 (17.3)	-
Northrop Configuration CAI [+,-,90,0,0,+0,0,+,-,012]	Impact				
Residual Strength, ksi (MPa)	31 ft-lb	42 (289)	-	-	-
Modulus, Msi (GPa)	31 ft-lb	12 (83)	-	-	-
Edge Delamination Strength GD/FW Configuration [+25,-25,+25,-25,90]s	Onset of Delamination				
Strength, ksi (MPa)		35 (241)	-	34 (234)	-

Fiber volume = 60%

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Table 8 | Processing Data – Carbon Fiber Unidirectional, Post-Cure Effects – Tg and Toughness

Post-Cure Condition	Dry Tg, °F (°C) (QC-AP-23)	Compression After Impact Toughness at Post-Cure Condition IM7 Composite, 1000 in-lb/in Impact
350°F (177°C) for 6 hours	420 (216)	31 ksi (214 MPa)
375°F (190°C) for 6 hours	480 (249)	39 ksi (269 MPa)
410°F (210°C) for 6 hours	505 (263)	40 ksi (241 MPa)
440°F (227°C) for 6 hours	540 (282)	35 ksi (241 MPa)
470°F (243°C) for 6 hours	580 (304)	33 ksi (227 MPa)

Fiber Volume = 60%

Table 9 | Mechanical Properties – Carbon Fiber Woven, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	AS4-3K-70PW	G30-500-3K-70PW	G30-500-3K-8HS
Tensile Warp (0°) Strength, ksi (MPa) (ASTM D3039)	75 (24)	123 (848)	135 (932)	130 (896)
	350 (177)	-	-	-
	350 (177) Wet	-	-	113 (779)
Tensile Warp (0°) Modulus, Msi (GPa)	75 (24)	10.2 (70)	10.0 (69)	8.9 (61)
	350 (177)	-	-	-
	350 (177) Wet	-	-	8.8 (61)
Tensile Warp (0°) Strain, μ-in/in	75 (24)	-	12,000	-
Compression Warp (0°) Strength, ksi (MPa) (SACMA SRM 1-88)	75 (24)	125 (862)	135 (932)	110 (759)
	325 (163)	110 (759)	120 (827)	-
	325 (163) Wet	-	60 (414)	-
	350 (177) Wet	65 (448)	-	-
Compression Warp (0°) Modulus, Msi (GPa)	75 (24)	8.8 (61)	8.9 (61)	-
Compression Interlaminar Shear Warp (0°) Strength, ksi (MPa) (BSS 7260)	75 (24)	10.1 (70)	9.0 (62)	-
	325 (163)	-	-	-
	325 (163) Wet	-	5.0 (34)	-

Fiber Volume = 58%, Wet = 1.3% weight gain

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Table 10 | Mechanical Properties – Carbon Fiber Woven, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	AS4-3K-70PW	G30-500-3K-70PW	G30-500-3K-8HS
Long Beam Flexure (BMS 8-335) 0/90 Lay-up Ultimate, lb	75 (24)	-	330	-
	325 (163)	-	270	-
P/Y, lb/in	75 (24)	-	260	-
	325 (163)	-	245	-
Short Beam Shear (ASTM D2344) Warp Strength, Msi (GPa)	75 (24)	10.4 (72)	9.2 (63)	10.4 (72)
	250 (121)	9.2 (63)	8.1 (56)	8.3 (57)
	350 (177)	7.1 (49)	6.4 (44)	6.8 (47)
	350 (177) Wet	6.0 (41)	5.0 (34)	-
Open Hole Compression Strength, ksi (MPa) [(+/-45), (0/90)] (SACMA SRM 3-88)	75 (24)	45 (310)	44 (302)	-
	250 (121)	43 (297)	38 (262)	-
	300 (149) Wet	35 (242)	33 (230)	-
	350 (177)	39 (269)	26 (179)	-

Fiber Volume = 58%, Wet = 1.3% weight gain

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Table 11 | Mechanical Properties – Carbon Fiber Woven, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	IM7-6K-5HS	AS4-3K-70-PW	G30-500-3K-70-PW
Tensile Warp (0°) Strength (ASTM D3039) ksi (MPa)	75 (24)	125 (862)	-	-
	350 (177) Wet	120 (827)	-	-
Tensile Warp (0°) Modulus, Msi (GPa)	75 (24)	11.8 (81)	-	-
	350 (177) Wet	10.0 (69)	-	-
Fill (90°) Strength, ksi (MPa)	75 (24)	125 (862)	-	-
	350 (177)	110 (759)	-	-
Fill (90°) Modulus, Msi (GPa)	75 (24)	10.9 (75)	-	-
	350 (177)	9.2 (63)	-	-
Open Hole Compression Strength, ksi (MPa) [+,0,0,90,0] W/D = 6.0	75 (24)	47 (324)	-	-
	300 (149) Wet	36 (248)	-	-
	350 (177) Wet	30 (207)	-	-
Open Hole Compression Modulus, Msi (GPa)	75 (24)	10.5 (72)	-	-
	350 (177) Wet	11.5 (79)	-	-
Compression After Impact Strength, ksi (MPa) [+,0,-,90]3s SACMA SRM 2-88 1500 in-lb/in impact	75 (24)	32 (220)	-	-

Fiber Volume = 58%, Wet = 1.1% weight gain

Table 12 | Mechanical Properties – Carbon Fiber Woven, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	IM7-6K-5HS
Open Hole Tensile Strength, ksi (MPa) (+,0,0,90,0)	75 (24)	77 (531)
	350 (177) Wet	70 (483)
Open Hole Tensile Modulus, Msi (GPa)	75 (24)	10.5 (72)
	350 (177) Wet	11.5 (79)
Short Beam Shear Warp (0°) Strength (ASTM D2344), ksi (MPa)	75 (24)	16 (110)
	350 (177) Wet	7.1 (49)
Flexure Warp (0°) Strength, ksi (MPa)	75 (24)	145 (1000)
	350 (177) Wet	81 (421)
Flexure Warp (0°) Modulus, Msi (GPa)	75 (24)	10.3 (71)
	350 (177) Wet	10.3 (71)
Fill (90°) Strength, ksi (MPa)	75 (24)	125 (862)
	350 (177) Wet	58 (400)
Fill (90°) Modulus, Msi (GPa)	75 (24)	10.1 (70)
	350 (177) Wet	9.0 (62)

Fiber Volume = 58%, Wet = 1.1% weight gain

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Table 13 | Mechanical Properties – Glass Fiber Woven, Standard Cure + Standard Post-Cure

Property	Test Temperature °F (°C)	Glass Style 6781
Tensile Warp Strength, ksi (MPa) (ASTM D638)	75 (24)	86 (593)
Tensile Warp Modulus, Msi (GPa)	75 (24)	4.0 (27.6)
Compression Warp Strength, ksi (MPa) (ASTM D695)	75 (24)	72 (497)
Compression Warp Modulus, Msi (GPa)	75 (24)	3.7 (25.5)
Short Beam Shear Warp Strength, ksi (MPa) (ASTM D2344)	75 (24)	9.0 (62)

APPLICATION NOTES

Bagging Procedure

A schematic profile of the bagging procedure used for all laminates is shown in Figure 4.

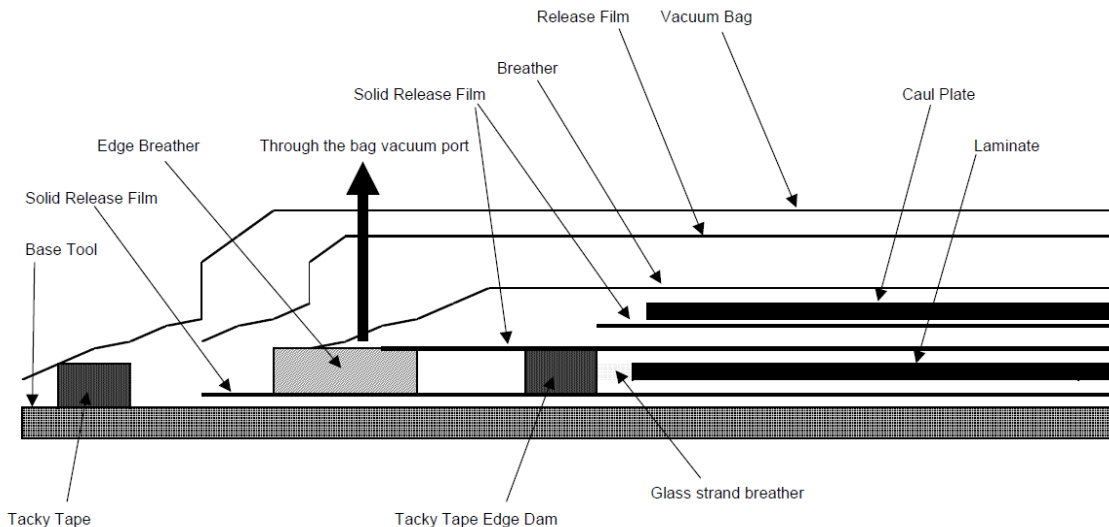


Figure 4 | Diagram of Bagging Used for Laminate Manufacture

NOTE: The bagging technique recommended for this resin system is a double bag arrangement. Bagging procedure is as follows:

1. Lay the release film on the tool surface and place the laminate on the release film.
2. Lay tacky tape along each edge of the laminate to form an edge dam, leaving only a very small gap between the laminate and the tacky tape.
3. Fill this gap with a glass fiber tow and extend about two inches beyond the edge dam to act as a breather along each laminate edge.

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4. Place strips of breather around each laminate approximately one to two inches from the edge dam to overlay the end of each glass strand breather.
5. Place a non-porous release film over each laminate and stick down onto the tacky tape edge dam to seal the laminate.
6. Prick small holes in the release film at opposite corners of the laminate.
7. Trim the release film so the edges lay on the surrounding strips of breather.
8. Place caul plates wrapped in non-porous PTFE release film on each laminate. The recommended caul plate size is such that a five millimeter gap is left along each edge, preventing bowed edges that could trap air inside the laminate.
9. Place a sheet of breather over the entire bed of laminates.
10. Cover with an additional release film as a precaution against excess resin bleed which could cause the outer bag to rupture (a problem sometimes observed with BMI systems).
11. Place a vacuum bag over the bed.
12. Place valves at either end of the bed in direct contact with the breather and pushed through the release film and outer bag.
13. Seal the outer vacuum bag using tacky tape.
14. Pull vacuum to check the integrity of the bagging.

Recommended Cure Cycle

Pressure	Full vacuum 22 in Hg (74.5 KPa) minimum and 15 psi (103 KPa) autoclave pressure
Heat-up	Room temperature to 250°F (121°C) at 1 – 5°F (0.6 – 3°C) per minute
Hold	250°F (121°C) for 45 ± 5 minutes
Pressure	Increase pressure to 85 psi (586 KPa) and vent vacuum
Heat-up	250°F to 350°F (121°C to 177°C) at 1 – 5°F (0.6 – 3°C) per minute
Hold	350°F (177°C) for 360 minutes
Cool	Under pressure below 120°F (49°C) at 1 – 5°F (0.6 – 3°C) per minute

Recommended Post-Cure Cycle

Freestanding in an air-circulating oven

Heat-up	Room temperature to 440°F (227°C) at 1 – 5°F (0.6 – 3°C) per minute
Hold	440°F (227°C) for 360 minutes
Cool	Below 120°F (49°C) at 1 – 5°F (0.6 – 3°C) per minute

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General Cure Information

CYCOM 5250-4 can be used in numerous ways to fabricate void free parts. Most applications use autoclave procedures, but compression molding and resin transfer molding (using a modified version) have been successfully used to form components. This document outlines the parameters that should be considered when designing a cure cycle for a specific part or application.

Resin Flow

The key parameter for successful laminate processing is retention of the resin in the layup. CYCOM 5250-4 is a very high flow system that allows for flexibility in processing provided the resin flow is restrained. The standard cure cycle for CYCOM 5250-4 restricts flow by advancing the material, with a resulting increase in viscosity, during a 250°F (121°C) hold prior to apply pressure to the part.

Bagging

Regardless of cure cycle, the bagging of the final layup is crucial to maintaining resin in the laminate during cure. All 5250-4 products are supplied as net resin systems. Bleeding during cure to remove entrapped air or volatiles is not recommended. Proper bagging should:

- Promote removal of entrapped air by connecting the laminate edge to the vacuum source
- Resist excessive bleeding of the laminate through the use of edge dams or tooling barriers
- Result in a maximum resin loss of 1%.

Pressure

Standard pressure is 85 psi.

The hold or dwell cycle is often difficult to manage for multiple part cure runs. When this is the case, the part with the fastest heat-up rate should be used to determine the point of pressure application. Additionally, the dwell can be eliminated and pressure applied from the start of cure in certain cases where:

- Flat or mildly-contoured parts have been dammed to prevent resin flow
- The heat-up rate is less than 1°F (0.6°C) per minute.

Highly contoured parts require a build in viscosity before pressure is applied to avoid excessive thinning of the plies in tight radius areas. This can be accomplished by using the dwell cycle or by using a slow heat-up rate and applying pressure at a point in the heat-up where the resin viscosity has begun to increase toward gel [approximately 300°F(149°C) for a 2°F(1°C)/minute ramp rate].

Vacuum Compaction

Vacuum should be applied to the final assembly for a least 1 hour before starting the cure. Vacuum compaction during assembly assists in debulking of the part. This can be performed at room temperature to 130°F (54°C) to promote further compacting. For warm debulking, total time at 130°F (54°C) should be 3 hours or less.

Staging of the prepreg at a temperature above 200°F (93°C) is not recommended. If the material is allowed to gel at low temperature without completion of cure, the cool-down stress will exceed the resin strength resulting in localized delamination or total breakdown of the resin.

> CYCOM[®] 5250-4 PREPREG SYSTEM

TECHNICAL DATA SHEET

Final Cure Temperature

CYCOM 5250-4 reaches an acceptable cure state after 6 hours at 350°F (177°C). Better toughness is achieved by increasing the final cure state to 375°F (191°C) for 4 hours. Final cure temperatures below 350°F (177°C) are not recommended as they reduce toughness significantly.

Post-Cure

Post-cure temperatures can be varied from post-cure of 375°F (191°C) for 6 hours to post-cure of 470°F (243°C) for 4 hours. The best balance of service temperature and toughness is achieved with an initial cure of 350°F (177°C) for 6 hours or 375°F (191°C) for 4 – 6 hours with a 440°F (227°C) 4 – 6 hour post-cure. Higher service temperature applications [above 400°F (204°C) dry] benefit from post-cure at 470°F (243°C) for 4 hours.

PRODUCT HANDLING AND SAFETY

Cytec Engineered Materials recommends wearing clean, impervious gloves when working with BMI 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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