

# FORMICA® LAMINATE BY FORMICA GROUP / FIRE-RATING ASTM E-84, NFPA 255 TECHNICAL BRIEF



## FIRE-RATED PANEL ASSEMBLIES

Formica Corporation conducts and maintains an active fire testing program to provide code regulators, architects, and product designers with current information on a variety of panel assemblies and to eliminate the necessity for fabricators to run fire tests on their own. Various combinations of surface laminates and backers, including both fire-rated grades and standard laminates, were assembled and tested using different substrate and adhesive combinations. All data is grouped, based on flame spread values, into one of the following classifications:

### CLASSIFICATION

- (A): 0-25
- (B): 26-75
- (C): 76-200

Classifications for interior finish codes are generally based on these flame spread ranges, which are relative values. The requirement for smoke-developed values is usually set at a maximum value of 450 in most codes. Due to the variety of codes, specifiers should check with the local regulatory authority for specific requirements in the area where the panels will be installed.

All reports on test data or other technical data apply only to the actual panel assembly (substrate, adhesive, and laminate) or panel assemblies tested, and not to any similar material or product, nor to any production run of such material or product. Different test results can occur based different test conditions, substrates, adhesives, and testing methods or standards. Users of published information about test data or other technical data should carefully review the description of actual specimens tested and test information provided or available from the manufacturer or testing agency. Manufacturer disclaims any legal responsibility with respect to such data and technical data.

Formica Corporation hereby states that the products listed below have been tested for conformity with an "Independent Third Party Testing Agency" and that those test results confirmed compliance with the above-referenced standard as of the test date.

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## TECHNICAL BRIEF CONTINUED



### GRADE/FORMICA® BRAND PRODUCTS

(FACED MATERIAL)	ADHESIVE	SUBSTRATE	THICKNESS	BACKER	FLAME	SMOKE	CLASS
10/HPL (HGS)	cat PVAc	MDF	1/2	91/BKL	125	125	C
10/HPL (HGS)	cat PVAc	MDF	3/4	91/BKL	75	105	B
10/HPL (HGS)	cat PVAc	PTB	1/2	91/BKL	65	285	B
10/HPL (HGS)	cat PVAc	PTB	3/4	91/BKL	55	210	B
10/HPL (HGS)	cat PVAc	FR PTB	1/2	91/BKL	45	150	B
10/HPL (HGS)	cat PVAc	FR PTB	3/4	91/BKL	55	115	B
10/HPL (HGS)	cat PVAc	Hardyboard	1/4	n/a	60	25	B
10/HPL (HGS)	contact	MDF	1/2	91/BKL	80	195	C
10/HPL (HGS)	contact	MDF	3/4	91/BKL	85	165	C
10/HPL (HGS)	contact	PTB	1/2	91/BKL	155	225	C
10/HPL (HGS)	contact	PTB	3/4	91/BKL	160	155	C
10/HPL (HGS)	contact	FR PTB	1/2	91/BKL	30	100	B
10/HPL (HGS)	contact	FR PTB	3/4	91/BKL	35	75	B
10/HPL (HGS)	PVAc	MDF	1/2	91/BKL	160	125	C
10/HPL (HGS)	PVAc	MDF	3/4	91/BKL	125	125	C
10/HPL (HGS)	PVAc	PTB	1/2	91/BKL	130	145	C
10/HPL (HGS)	PVAc	PTB	3/4	91/BKL	120	175	C
10/HPL (HGS)	PVAc	FR PTB	1/2	91/BKL	150	180	C
10/HPL (HGS)	PVAc	FR PTB	3/4	91/BKL	150	160	C
10/HPL (HGS)	unbonded				95	135	C
12/HPL (HGP)	cat PVAc	MDF	1/2	91/BKL	120	115	C
12/HPL (HGP)	cat PVAc	MDF	3/4	91/BKL	80	85	C
12/HPL (HGP)	cat PVAc	PTB	3/4	91/BKL	60	205	B
12/HPL (HGP)	cat PVAc	FR PTB	1/2	91/BKL	65	90	B
12/HPL (HGP)	cat PVAc	FR PTB	3/4	91/BKL	60	135	B
12/HPL (HGP)	cat PVAc	Hardyboard	1/4	n/a	45	10	B
12/HPL (HGP)	contact	MDF	1/2	91/BKL	150	110	C
12/HPL (HGP)	contact	MDF	3/4	91/BKL	125	195	C
12/HPL (HGP)	contact	PTB	1/2	91/BKL	185	140	C
12/HPL (HGP)	contact	PTB	3/4	91/BKL	170	85	C
12/HPL (HGP)	contact	FR PTB	1/2	91/BKL	35	90	B
12/HPL (HGP)	contact	FR PTB	3/4	91/BKL	45	100	B
12/HPL (HGP)	PVAc	MDF	1/2	91/BKL	180	55	C
12/HPL (HGP)	PVAc	MDF	3/4	91/BKL	170	85	C
12/HPL (HGP)	PVAc	PTB	1/2	91/BKL	155	100	C
12/HPL (HGP)	PVAc	PTB	3/4	91/BKL	185	70	C
12/HPL (HGP)	PVAc	FR PTB	1/2	91/BKL	150	170	C
12/HPL (HGP)	PVAc	FR PTB	3/4	91/BKL	150	135	C
12/HPL (HGP)	unbonded				80	40	C
20/HPL (VGP)	cat PVAc	MDF	1/2	91/BKL	115	395	C
20/HPL (VGP)	cat PVAc	MDF	3/4	91/BKL	80	105	C
20/HPL (VGP)	cat PVAc	PTB	1/2	91/BKL	80	275	C
20/HPL (VGP)	cat PVAc	PTB	3/4	91/BKL	65	185	B
20/HPL (VGP)	cat PVAc	Hardyboard	1/4	n/a	35	5	B
20/HPL (VGP)	contact	MDF	1/2	91/BKL	180	175	C
20/HPL (VGP)	contact	MDF	3/4	91/BKL	80	170	C
20/HPL (VGP)	contact	PTB	1/2	91/BKL	110	245	C
20/HPL (VGP)	PVAc	MDF	3/4	91/BKL	195	45	C

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## TECHNICAL BRIEF CONTINUED



### GRADE/FORMICA® BRAND PRODUCTS

(FACED MATERIAL)	ADHESIVE	SUBSTRATE	THICKNESS	BACKER	FLAME	SMOKE	CLASS
20/HPL (VGP)	PVAc	FR PTB	1/2	91/BKL	115	50	C
20/HPL (VGP)	PVAc	FR PTB	3/4	91/BKL	175	70	C
20/HPL (VGP)	PVAc	PTB	1/2	91/BKL	165	80	C
20/HPL (VGP)	PVAc	PTB	3/4	91/BKL	190	80	C
20/HPL (VGP)	unbonded				35	50	B
A3CT/Chemtop2™	cat PVAc	FR PTB	3/4	91/BKL	70	95	B
A3CT/Chemtop2™	cat PVAc	PTB	3/4	91/BKL	130	90	C
A3CT/Chemtop2™	contact	FR PTB	3/4	91/BKL	65	100	B
840 Lab Grade	contact	PTB	3/4	91/BKL	80	85	C
CC/ColorCore2™ (China)	cat PVAc	FR PTB	3/4	91/BKL	25	250	A
CC/ColorCore2™ (China)	unbonded				40	300	B
91/BKL	contact	PTB	1/2	91/BKL	100	60	C
36/BasicMetal™	contact	PTB	3/4	91/BKL	65	90	B
36/BasicMetal™	unbonded				40	25	B
82/DecoMetal®	contact	PTB	3/4	91/BKL	20	25	A
83/DecoMetal® (Solid Metal)	contact	PTB	3/4	91/BKL	0	110	A
83/DecoMetal® (Solid Metal)	unbonded				5	5	A
84/DecoMetal®	contact	PTB	3/4	91/BKL	10	0	A
84/DecoMetal®	unbonded				15	10	A
85/DecoMetal®	contact	PTB	3/4	91/BKL	5	0	A
85/DecoMetal®	unbonded				5	20	A
86/DecoMetal®	contact	PTB	3/4	91/BKL	15	10	A
86/DecoMetal®	unbonded				10	25	A
S6/Compact (1/2" Thick Phenolic)	unbonded				30	110	B
S7/Compact (3/4" Thick Phenolic)	unbonded				30	110	B
R3/Compact (1" Thick Phenolic)	unbonded				20	80	A
FG/frpSelect®	unbonded				160	385	C
GL/Veneer	unbonded				50	35	B
GL/Veneer	contact	FR PTB	3/4	91/BKL	190	45	C
GL/Veneer	cat PVAc	FR PTB	3/4	91/BKL	35	25	B
WX/Veneer	unbonded				80	45	C
WX/Veneer	contact	FR PTB	3/4	91/BKL	80	75	C
WX/Veneer	cat PVAc	FR PTB	3/4	91/BKL	60	65	B

**HIGH PRESSURE LAMINATES / GRADES 10, 12, 20 AND DECOMETAL® WERE ALSO FIRE TESTED AND FOUND TO MEET THE FOLLOWING TEST METHODS:**

MVSS302		SWRI TEST ID
HPL – Grade 10/HGS	pass	01.11810.01.012b
HPL – Grade 12/HGP	pass	01.11810.01.012c
HPL – Grade 20/VGP	pass	01.11810.01.012a
DecoMetal® Grade 85	pass	01.13544.01.627

ASTM E162		SWRI TEST ID
HPL – Grade 10/HGS	pass	01.11810.01.011c
HPL – Grade 12/HGP	pass	01.11810.01.011b
HPL – Grade 20/VGP	pass	01.11810.01.011a
DecoMetal® Grade 85	pass	01.13539.02.011b

ASTM E662		SWRI TEST ID
Grade 10/HGS	pass	01.11813.02.010a
Grade 12/HGP	pass	01.11813.02.010b
Grade 20/VGP	pass	01.11813.02.010
DecoMetal® Grade 85	pass	01.13539.02.011a

ABBREVIATIONS	
cement board	HardieBoard™
contact	Formica® F150/F151 contact adhesive spray applied
PVAc	Sovereign/Henkel XA2600 PVAc adhesive roller applied
cat PVAc	Borden/Hexion WB1116/M316 catalyzed PVAc adhesive roller applied

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## TECHNICAL BRIEF CONTINUED



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Greenguard Environmental Institute  
Formica® high-pressure laminate (HPL) is GreenGuard Indoor Air Quality Certified under the GreenGuard Standard for Low-Emitting Products.

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