

# FORMICA® LAMINATE BY FORMICA GROUP



## FIRE-RATING TECHNICAL BRIEF

ASTM E-84, NFPA 255, UL 723, ULC-S102

### 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.

Any information or suggestion provided by Manufacturer concerning applications, specifications or compliance with codes or standards relating to Formica® Brand Products is provided solely for your convenient reference and without any representation as to accuracy or suitability. Manufacturer disclaims any legal responsibility with respect to such information or suggestions. The user must independently verify and test the suitability of any information or products for their own particular purpose or specific application.

The Product is further described in Manufacturer's most current product warranty, use and test information located at [www.formica.com](http://www.formica.com), which is the only authorized source for published technical information about Formica® Brand Products. Due to the variety of uses and applications to which Formica® Brand Products may be put, Manufacturer can make no warranty that this product is suitable for any particular purpose, and can make no other warranties, express or implied, other than those set forth at [www.formica.com](http://www.formica.com).

#### GRADE/FORMICA® BRAND PRODUCTS

(FACED MATERIAL)	ADHESIVE	SUBSTRATE	THICKNESS	FLAME	SMOKE	CLASS	TEST
10/ (HGS)	cat PVAc	PTB	3/4	55	210	B	ASTM E84
10/ (HGS)	cat PVAc	FR PTB	3/4	55	115	B	ASTM E84
10/ (HGS)	contact	PTB	3/4	160	155	C	ASTM E84
10/ (HGS)	contact	FR PTB	3/4	35	75	B	ASTM E84
10/ (HGS)	PVAc	PTB	3/4	120	175	C	ASTM E84
10/ (HGS)	PVAc	FR PTB	3/4	150	160	C	ASTM E84
10/ (HGS)	unbonded			95	135	C	ASTM E84
12/ (HGP)	cat PVAc	PTB	3/4	60	205	B	ASTM E84
12/ (HGP)	cat PVAc	FR PTB	3/4	60	135	B	ASTM E84
12/ (HGP)	contact	PTB	3/4	170	85	C	ASTM E84
12/ (HGP)	contact	FR PTB	3/4	45	100	B	ASTM E84
12/ (HGP)	PVAc	FR PTB	3/4	150	135	C	ASTM E84
12/ (HGP)	unbonded			80	40	C	ASTM E84
12/ (HGP)	unbonded			30	75	B	ULC S102
12/ (HGP)	contact	PTB	3/4	180	230	C	ULC S102
12/ (HGP)	contact	IRCB	1/2	40	80	B	ULC S102



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### GRADE/FORMICA® BRAND PRODUCTS (CONTINUED)

(FACED MATERIAL)	ADHESIVE	SUBSTRATE	THICKNESS	FLAME	SMOKE	CLASS	TEST
20/ (VGP)	cat PVAc	PTB	3/4	65	185	B	ASTM E84
20/ (VGP)	PVAc	FR PTB	3/4	175	70	C	ASTM E84
20/ (VGP)	PVAc	PTB	3/4	190	80	C	ASTM E84
20/ (VGP)	unbonded			35	50	B	ASTM E84
20/ (VGP)	unbonded			25	55	A	ULC S102
20/ (VGP)	contact	PTB	3/4	185	180	C	ULC S102
20/ (VGP)	contact	IRCB	1/2	35	85	B	ULC S102
32/ (VGF)	unbonded			0	125	A	UL 723
32/ (VGF)	resorcinol	FR PTB	3/4	0	300	A	UL 723
32/ (VGF)	resorcinol	IRCB	3/4	0	65	A	UL 723
32/ (VGF)	resorcinol	FR PTB	3/4	0	130	A	ULC S102
32/ (VGF)	resorcinol	IRCB	1/2	0	45	A	ULC S102
50/ (HGF)	unbonded			0	125	A	UL 723
50/ (HGF)	resorcinol	FR PTB	3/4	0	300	A	UL 723
50/ (HGF)	50/ (HGF)	IRCB	3/4	0	65	A	UL 723
50/ (HGF)	resorcinol	FR PTB	3/4	0	130	A	ULC S102
50/ (HGF)	resorcinol	IRCB	3/4	0	45	A	ULC S102
H1/HardStop™	unbonded			0	40	A	ASTM E84
H1/HardStop™	unbonded			0	70-95	A	UL 723
H1/HardStop™	unbonded			0	40	A	ULC S102
H1/HardStop™	Advanced Polymer	Gypsum	1/2	0	0	A	ASTM E84
TK	unbonded		1/10	45	75	B	ASTM E84
A3CT/Chemtop®2 Laminate	cat PVAc	FR PTB	3/4	70	95	B	ASTM E84
A3CT/Chemtop®2 Laminate	cat PVAc	PTB	3/4	130	90	C	ASTM E84
A3CT/Chemtop®2 Laminate	contact	FR PTB	3/4	65	100	B	ASTM E84
840 Lab Grade	contact	PTB	3/4	80	85	C	ASTM E84
CC/ColorCore®2	unbonded			40	125	B	ASTM E84
CC/ColorCore®2	contact	FR PTB	3/4	45	350	B	ASTM E84
CC/ColorCore®2	unbonded			50	145	B	ULC S102
CC/ColorCore®2	contact	IRCB	1/2	30	65	B	ULC S102
CD/ColorCore®2 Infiniti	unbonded			75	160	B	ASTM E84
C6/ColorCore®2 Compact	unbonded		1/2	25	65	A	ASTM E84
C7/ColorCore®2 Compact	unbonded		3/4	25	55	A	ASTM E84
91/BKL	contact	PTB	1/2	100	60	C	ASTM E84
R6/BKL	unbonded			65	10	B	ASTM E84
36/BasicMetal™	contact	PTB	3/4	65	90	B	ASTM E84
36/BasicMetal™	unbonded			40	25	B	ASTM E84
82/DecoMetal®	contact	PTB	3/4	20	25	A	ASTM E84
83/DecoMetal® (Solid Metal)	contact	PTB	3/4	0	110	A	ASTM E84
83/DecoMetal® (Solid Metal)	unbonded			5	5	A	ASTM E84
84/DecoMetal®	contact	PTB	3/4	10	0	A	ASTM E84
84/DecoMetal®	unbonded			15	10	A	ASTM E84
84/DecoMetal®	contact	PTB	3/4	5	0	A	ASTM E84
84/DecoMetal®	unbonded			5	20	A	ASTM E84

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B4/DecoMetal®	unbonded	PTB	3/4	15	10	A	ASTM E84
S2/Compact	unbonded		1/8	80	160	C	ASTM E84
P7/Compact	unbonded		1/4	55	284	B	ASTM E84
P7/Compact	unbonded		1/4	35	160	B	ULC S102
P9/Compact	unbonded		5/16	49	259	B	ASTM E84
S8/Compact	unbonded		3/4	45	230	B	ASTM E84
P8/Compact	unbonded		5/8	37	196	B	ASTM E84
S6/Compact (½" Thick Phenolic)	unbonded		1/2	30	110	B	ASTM E84
S6/Compact	unbonded		1/2	75	85	B	ULC S102
S7/Compact (¾" Thick Phenolic)	unbonded		3/4	30	110	B	ASTM E84
S7/Compact	unbonded		3/4	25	75	A	ULC S102
R3/Compact (1" Thick Phenolic)	unbonded		1	20	80	A	ASTM E84
D4/HPL (VGS)	unbonded			55	30	B	ASTM E84
D5/HPL (HGS)	unbonded			55	33	B	ASTM E84
A7/HPL (HGP)	unbonded			45	100	B	ASTM E84
M8/Magnetic Markerboard	unbonded			40	120	B	ASTM E84
M8/Magnetic Chalkboard	unbonded			35	60	B	ASTM E84
T9/Chalkable	unbonded			230	70	Unclassified	ASTM E84
FM/Compact	unbonded		1/4	10	165	A	UL 723
FM/Compact	unbonded		1/4	30	115	B	ULC S102
FL/Compact	unbonded		5/16	10	165	A	UL 723
FL/Compact	unbonded		5/16	30	115	B	ULC S102
FK/Compact	unbonded		5/8	10	165	A	UL 723
FK/Compact	unbonded		5/8	30	115	B	ULC S102
F1/Compact	unbonded		1/2	10	165	A	UL 723
F1/Compact	unbonded		1/2	30	115	B	ULC S102
F5/Compact	unbonded		3/4	10	165	A	UL 723
F5/Compact	unbonded		3/4	30	115	B	ULC S102
F8/Compact	unbonded		1	10	165	A	UL 723
F8/Compact	unbonded		1	30	115	B	ULC S102

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

MVSS302	TEST AGENCY	
10/HGS	pass	Industrial Tech
12/HGP	pass	SwRI
20/VGP	pass	Industrial Tech
H1/HardStop™	pass	SwRI

  

ASTM E162	TEST AGENCY	
10/HGS	pass	SwRI
12/HGP	pass	SwRI
20/VGP	pass	SwRI
DecoMetal® Grade 85	pass	SwRI

ASTM E662	TEST AGENCY	
10/HGS	pass	SwRI
12/HGP	pass	SwRI
20/VGP	pass	SwRI
DecoMetal® Grade 85	pass	SwRI

ABBREVIATIONS	
contact	Formica® F150/F151 contact adhesive spray applied
PVAc	Choice Brands XA2600 PVAc adhesive roller applied
cat PVAc	Borden/Hexion WB1116/M316 catalyzed PVAc adhesive roller applied

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### LIMITED WARRANTY

Formica Corporation expressly warrants that, for a period of one (1) year from the date of first sale, these products will be reasonably free of defects in materials and workmanship, and that when properly handled and fabricated, will conform, within accepted tolerance, to applicable manufacturing specifications. Colors subject to dye lot variations. This limited warranty only applies to Formica® Brand Laminate which is stored, handled, fabricated and installed in the manner recommended by Formica Corporation. Due to the variety of uses and applications to which Formica® Brand Laminate may be put, FORMICA CORPORATION CAN MAKE NO WARRANTY THAT THIS PRODUCT IS SUITABLE FOR ANY PARTICULAR PURPOSE AND CAN MAKE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE SET FORTH ABOVE.

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Failure by buyer to give Formica Corporation written notice of claim within 30 days from date of delivery or, in the case of non-delivery from the date fixed for delivery, shall constitute a waiver by buyer of all claims in respect of such products.

### MANUFACTURER

Formica® Brand Laminate sheets are manufactured by Formica Corporation.

### TECHNICAL SERVICES

Technical assistance may be obtained through your local Formica® Brand Products Distributor or from Formica Corporation trained representatives in sales offices throughout the country. To assist these representatives, Formica Corporation maintains a sales and technical services staff in Cincinnati, Ohio. For technical assistance, contact your distributor or sales representative; write the company directly at Formica Corporation Technical Services Department, 10155 Reading Road, Cincinnati, OH, 45241; call (513) 786-3578 or 1-800-FORMICA™; or fax (513) 786-3195. In Canada, call 1-800-363-1405. In Mexico, call (525) 530-3135.

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