

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 on 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



GR ADE / FORMICA® BR AND PRODUCTS

| (FACED MATERIAL) | ADHESIVE | SUBSTR ATE | THICKNESS | BACKER | FL A ME | SMOKE | CL ASS |
|-----------------------------------|----------|------------|-----------|--------|---------|-------|--------------|
| 10/HPL (HGS) | cat PVAc | PTB | 3/4 | 91/BKL | 55 | 210 | B |
| 10/HPL (HGS) | cat PVAc | FR PTB | 3/4 | 91/BKL | 55 | 115 | B |
| 10/HPL (HGS) | contact | PTB | 3/4 | 91/BKL | 160 | 155 | C |
| 10/HPL (HGS) | contact | FR PTB | 3/4 | 91/BKL | 35 | 75 | B |
| 10/HPL (HGS) | PVAc | PTB | 3/4 | 91/BKL | 120 | 175 | 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 | PTB | 3/4 | 91/BKL | 60 | 205 | B |
| 12/HPL (HGP) | cat PVAc | FR PTB | 3/4 | 91/BKL | 60 | 135 | B |
| 12/HPL (HGP) | contact | PTB | 3/4 | 91/BKL | 170 | 85 | C |
| 12/HPL (HGP) | contact | FR PTB | 3/4 | 91/BKL | 45 | 100 | B |
| 12/HPL (HGP) | PVAc | PTB | 3/4 | 91/BKL | 185 | 70 | 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 | PTB | 3/4 | 91/BKL | 65 | 185 | B |
| 20/HPL (VGP) | PVAc | FR PTB | 3/4 | 91/BKL | 175 | 70 | 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™ | unbonded | | | | 40 | 125 | B |
| CC/ColorCore2™ | contact | FR PTB | 3/4 | | 45 | 350 | B |
| 91/BKL | contact | PTB | 1/2 | 91/BKL | 100 | 60 | C |
| R6/BKL | unbonded | | | | 65 | 10 | B |
| 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 |
| S2/Compact (1/8" Thick Phenolic) | unbonded | | | | 80 | 160 | C |
| P7/Compact (1/4" Thick Phenolic) | unbonded | | | | 55 | 284 | B |
| P9/Compact (5/16" Thick Phenolic) | unbonded | | | | 49 | 259 | B |
| S8/Compact (3/8" Thick Phenolic) | unbonded | | | | 45 | 230 | B |
| P8/Compact (5/8" Thick Phenolic) | unbonded | | | | 37 | 196 | B |
| 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 |
| D4/HPL (VGS) | unbonded | | | | 55 | 30 | B |
| D5/HPL (HGS) | unbonded | | | | 55 | 35 | B |
| A7/HPL (HGP) | unbonded | | | | 45 | 100 | B |
| M8/ Magnetic Markerboard | unbonded | | | | 40 | 120 | B |
| M8/ Magnetic Chalkboard | unbonded | | | | 35 | 60 | B |
| T9/Chalkable | unbonded | | | | 230 | 70 | Unclassified |

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HIGH PRESSURE L AMINATES / 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 | | |
| 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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TECHNICAL BRIEF CONTINUED



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U.S. Green Building Council
Formica Corporation is a member of the U.S. Green Building Council.



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

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