

COMPACT™ STRUCTURAL LAMINATES BY FORMICA GROUP

TECHNICAL DATA



PRODUCT DESCRIPTION

Melamine-impregnated decorative surface papers are combined with phenolic treated kraft paper consolidated in a press at high pressure.

RECOMMENDED APPLICATION

Compact™ by Formica Group is suitable for interior horizontal or vertical surfaces where high strength, impact, water, and humidity resistance are required. Because of its inherent high strength, Compact sheets may be used as a structural material. Compact sheets can be drilled, routed, tapped, sanded, shaped and cut with standard carbide-tipped tooling. Compact sheets are available in two-sided decorative face; thicknesses ranging from 1/8" (3.18mm) to 1" (25.4mm) with black core. Fire retardant, Class I (A) grades are also available.

FABRICATION AND ASSEMBLY

LIMITATIONS

Compact sheets are suitable for interior horizontal or vertical surfaces. Compact sheets, 1/4" (6.4mm) or less, are not recommended for adherence directly to plaster, gypsum board, or concrete. Do not use in areas exposed to temperature exceeding 275°F (135°C). Compact sheets are not recommended for exterior applications.

STORAGE

Compact sheets should be stored horizontally, with a caul board or other protective sheet placed on top to protect the material from possible damage. The material should be protected from moisture, and should never be stored in contact with the floor or an outside wall. Optimum conditions for storage are approximately 75°F (24°C), and 45% to 55% relative humidity.

PRECONDITIONING

Compact sheets moves with changes in humidity, but less than standard high pressure laminate (HPL) sheet. Allow Compact sheets to acclimate for at least 48 hours to ambient conditions prior to fabrication. Optimum conditions are approximately 75°F (24°C), and at a relative humidity of 45% to 55%. Provisions should be made for the circulation of air around the material.

SUBSTRATES

If required, thinner variations of Compact sheets may be bonded to 45# density, industrial-grade particle board (ANSI A208.1-1999), medium density fiberboard (MDF), or hardwood-faced luan plywood. Softwood fir and other plywood have different dimensional stability and are not recommended as substrates. The substrates should be sanded smooth, clean, free of oil or grease, and uniform in thickness.

ADHESIVES

PVAc and rigid-set adhesives (urea, resorcinol) can be used to bond Compact sheets to substrates. Solvent-based contact adhesive can be used to bond laminate sheets to Compact sheets. Do not use water-based contacts for this application. Compact sheets greater than 1/4" (6.4mm) in thickness, can be applied as wall panels to the substrate using mechanical fasteners.

ASSEMBLY

Material, equipment, and workmanship should conform to the industry standard practices, conditions, procedures, and recommendations as specified by ANSI/NEMA LD3-2005. Compact sheets can be sawed, drilled, routed, and fabricated similarly to standard HPL. Carbide-tipped cutting tools are recommended. All inside corners of cutouts must be radiused as large as possible, 1/8" (3.18mm) minimum, to avoid stress cracking. The edges and corners should be routed, sanded, or filed smooth and free of chips or nicks.

TECHNICAL DATA

Performance compliance of Compact by Formica Group:

ANSI/NEMA STANDARDS PUBLICATION - LD3-2005

PHYSICAL PROPERTIES	LD3 TEST	COMPACT
Appearance	3.1	No ABC Defects
Light Resistance	3.3	Slight Effect
Cleanability	3.4	20 (maximum)
Stain Resistance	3.4	
Reagents 1 – 10		No Effect
Reagents 11 – 15		Moderate Effect
Boiling Water Resistance	3.5	Slight Effect
High Temperature Resistance	3.6	Slight Effect
Ball Impact Resistance (in.)	3.8	
– in		75 (minimum)
– mm		1905 (minimum)
Radiant Heat Resistance (sec.)	3.10	250 (minimum)
Dimensional Change	3.11	
Machine Direction – %		0.20 (maximum)
Cross Direction – %		0.50 (maximum)
Wear Resistance – cycles	3.13	400 (minimum)

ASTM MECHANICAL PERFORMANCE PROPERTIES

MECHANICAL PROPERTIES*	ASTM TEST	COMPACT
Flexural Strength	D790-84a	
Ultimate		1.877 x 10 ⁴ psi
Modulus		1.690 x 10 ⁴ psi
Tensile Strength	D638-84	
Ultimate		1.637 x 10 ⁴ psi
Modulus		1.650 x 10 ⁴ psi
Bond Strength	D952-8	1.460 x 10 ⁴ psi
Bearing Strength	D953-84a	1.650 x 10 ⁴ psi
Barcol Hardness	D2583	70

*Typical test results from an independent outside laboratory

COMPACT™ STRUCTURAL LAMINATES BY FORMICA GROUP

TECHNICAL DATA CONTINUED



FIRE TEST DATA – ASTM E-84

Contact Formica Corporation – Technical Services.

SIZES

Standard Compact

Sheet Sizes: 48" (121.9cm) x 96" (243.8cm)
 60" (152.4cm) x 96" (243.8cm)
 60" (152.4cm) x 120" (403.8cm)
 60" (152.4cm) x 144" (365.8cm)

Fire-Rated Compact

Sheet Widths: 48" (121.9cm), 60" (152.4cm)
 Sheet Lengths: 96" (243.8cm), 120" (403.8 cm),
 144" (365.8cm)

NOMINAL THICKNESSES

Compact™ sheet thickness tolerance is approximately +-5% of the nominal thickness

0.125" +-0.007" (3.18mm +- 0.18mm)
 0.250" +-0.014" (6.35mm +- 0.33mm)
 0.375" +- 0.019" (9.53mm +-0.48mm)
 0.500" +- 0.025" (12.70mm +- 0.64mm)
 0.625" +- 0.032" (15.88mm +- 0.81mm)
 0.750" +- 0.038" (19.05mm +- 0.97mm)
 1.000" +- 0.050" (25.4mm +- 1.27mm)

WEIGHT

Compact sheet weighs approximately 90 lbs/ft³ (1442 kg/m³).

COLORS, PATTERNS, AND FINISH

Compact sheets are available in a broad selection of designs and colors in matte finish as factory orders.

Compact samples are available from Formica Corporation specification representatives or directly from Formica Corporation. Call 1-800-FORMICA™ for ZIP-CHIP™ service.

HOW TO SPECIFY

Panels shall be Compact™ by Formica Group, Cincinnati, Ohio.

COLOR NUMBER

COLOR NAME

THICKNESS

FINISH

USE AND CARE

Compact sheets may be cleaned with a damp cloth and mild detergent. Use of abrasive cleaners, powders, scouring pads, steel wool, or sandpaper can damage the finish of the decorative surface. Acid- or alkaline-based cleaners and/or compounds will mar, etch, corrode, and permanently discolor the melamine decorative surface of Compact sheets. Do not use these materials on Compact surfaces, nor allow bottles and/or rags contaminated with acid- or alkaline-based cleaners/compounds to contact the surface. Accidental spills or splatters from these harsh materials should be wiped off immediately, and the area cleaned with a damp cloth.

EXAMPLES OF THESE MATERIALS ARE:

drain cleaners	rust removers
coffeepot cleaners	metal cleaners
ceramic cooktop cleaners	tub and tile cleaners
chlorine bleach	oven cleaners
some countertop cleaners	bowl cleaners
some disinfectants	

If in doubt about the suitability of a particular cleaner or detergent, check with its manufacturer (refer to Formica® Brand Laminate Use and Care Guide – Form no. YLT 02358W for specifics).

COMPACT™ STRUCTURAL LAMINATES BY FORMICA GROUP

TECHNICAL DATA CONTINUED



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.**

DISCLAIMER OF WARRANTIES

THE WARRANTIES SET FORTH HEREIN OR IN FORMICA CORPORATION'S WARRANTY DOCUMENTS WITH RESPECT TO A PRODUCT ARE THE ONLY WARRANTIES MADE BY FORMICA CORPORATION IN CONNECTION WITH THESE PRODUCTS, AND ARE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PRODUCTS SOLD BY FORMICA CORPORATION ARE SOLD ONLY TO THE SPECIFICATIONS SPECIFICALLY SET FORTH BY FORMICA CORPORATION IN WRITING. FORMICA CORPORATION'S SOLE OBLIGATION FOR A REMEDY TO BUYER SHALL BE REPAIR OR REPLACEMENT OF NON-CONFORMING PRODUCTS, OR AT THE OPTION OF FORMICA CORPORATION, RETURN OF THE PRODUCT AND REFUND OF THE PURCHASE PRICE. BUYER ASSUMES ALL RISK WHATSOEVER AS TO THE RESULT OF THE USE OF THE PRODUCTS PURCHASED, WHETHER USED SINGLY OR IN COMBINATION WITH OTHER SUBSTANCES.

LIMITATION OF LIABILITY

No claim by buyer of any kind, including claims for indemnification, whether as to quality or amount of products delivered or for non-delivery of products, shall be greater in amount than the purchase price of the products in respect of which damages are claimed. **IN NO EVENT SHALL FORMICA CORPORATION BE LIABLE TO BUYER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, RELIANCE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES OR COVER, OR LOSS OF PROFIT, REVENUE OR USE, IN CONNECTION WITH, ARISING OUT OF, OR AS A RESULT OF, THE SALE, DELIVERY, SERVICING, USE OR LOSS OF USE OF THE PRODUCTS SOLD HEREUNDER, OR FOR ANY LIABILITY OF BUYER TO ANY THIRD PARTY WITH RESPECT THERETO. BUYER SHALL INSPECT FOR NONCONFORMITY PROMPTLY UPON RECEIPT.** 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 Corporation
10155 Reading Road
Cincinnati, Ohio 45241-5279

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 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™ (option 2); or fax (513) 786-3195. In Canada, call 1-800-363-9280. In Mexico, call (525) 530-3135.

Formica is a sublicense trademark to Formica Corporation. Formica and the Formica Anvil logo are registered trademarks of The Diller Corporation. 1-800-FORMICA, Zip-Chip and Compact are trademarks of The Diller Corporation, a subsidiary of Formica Corporation. The products and manufacturing processes of Formica Corporation are protected under U.S. and foreign patents.

All ® brands are registered trademarks of the respective owners.
All ™ brands are trademarks of the respective owners.

For warranty information, please visit www.formica.com or call 1-800-FORMICA™.



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

©2009 Formica Corporation
Cincinnati, Ohio 45241
Printed in the USA
(01/09, rev 01/10)