

HARDSTOP® DECORATIVE PROTECTION PANELS BY FORMICA GROUP



TECHNICAL GUIDE, USE & CARE, WARRANTY, AND INSTALLATION GUIDE

INTRODUCTION

HardStop® Decorative Protection Panels by Formica Group offer an excellent solution for high-performance wall panels that coordinate perfectly with other Formica® Brand Laminates.

HardStop® Panels feature a treated fiberglass core for added durability, strength, and fire resistance. HardStop® Panels are Class A fire-rated.

HardStop® Panels are intended for commercial applications. They can be used in the following applications, provided installation instructions are strictly followed:

- Walls/Partitions/Wainscoting
- Backsplash

SAFETY

Refer to HardStop® Decorative Protection Panels SDS for additional safety information.

HardStop® Panels must be installed by a qualified professional. Professionals must follow all building codes and safety, personal protection equipment, and fire guidelines for installation.

Product contains fiberglass which could cause temporary mechanical irritation (itching) of skin, eyes and respiratory tract upon exposure to dust/particles during cutting, drilling or machining.

- Always wear a dust mask, protective clothing, and eye protection when cutting, drilling or machining HardStop® Panels. Use hearing protection as needed for power tools.
- Clear area of occupants and ensure only properly outfitted installers are present during installation.
- Area should be well ventilated.
- Clean up all dust.

During fabrication, ensure good ventilation conditions are in place. Ventilation rates should be matched to conditions. If applicable, use engineering controls such as local exhaust to maintain airborne dust levels below recommended OSHA exposure limits for nuisance dust. Avoid dust accumulation.

If you are unsure about how to comply with OSHA fiberglass dust regulations, consult a qualified industrial hygienist or safety professional. Formica Group makes no representation or warranty that adopting a particular cutting practice will ensure your compliance with OSHA guidelines or other applicable laws and safety requirements.

Follow the adhesive and silicone manufacturer's instructions for safety.

INSPECTION

Inspect all materials at the time they are received to ensure all panels and trim are free from damage and/or visible defects. HardStop® Panels are two-sided. If one side has visible defects the other side may be used. Do not install materials with known defects on both sides. It is the responsibility of the customer/fabricator/ installer to inspect materials before installation.

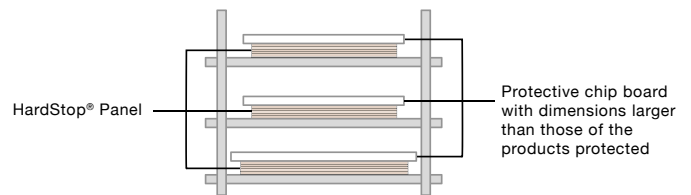
STORAGE CONDITIONS

Place all panels on a flat, dry surface (never directly on the floor or directly on concrete). The conditions for acclimation and storage are $70 \pm 5^\circ\text{F}$ ($18-24^\circ\text{C}$) and 35% – 50% humidity.

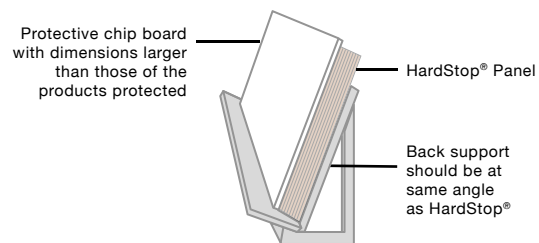
ACCLIMATION CONDITIONS

All HardStop® Panels need to acclimate a minimum of 72 hours prior to installation. To do this, store the panels indoors in the area where the installation will occur. Place all panels on a flat, dry surface (never directly on the floor or directly on concrete), and remove all packing materials. The conditions for acclimation, storage, and installation are $70 \pm 5^\circ\text{F}$ ($18-24^\circ\text{C}$) and 35% – 50% humidity.

Two recommended methods for storage or acclimation:



Or



INSTALLATION CONDITIONS

HardStop® Panels and all substrate surfaces must be dry (substrate compounds cured), clean and free of all grease, dust, and foreign matter. All surfaces must be kept indoors, and the area should be environmentally controlled with permanent HVAC system operational. Room must be between $70 \pm 5^\circ\text{F}$ ($18-24^\circ\text{C}$) and 35-50% humidity.

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HARDSTOP® PANELS MAY ONLY BE APPLIED TO:

1. Minimum level 3 finished drywall (non-painted)*
2. Painted or primed finished drywall (sanded as described below)*

* **Standard white board drywall only. Excludes all other gypsum products (including but not limited to green board and blue board), concrete block, brick, poured concrete, metal, ceramic tile, plywood, MDF, particleboard, cement board, etc.**

TOOLS & MATERIALS NEEDED:

- HardStop® Decorative Protection Panels by Formica Group
- Approved adhesive (see right)
- One or more of the below cutting tools. Blades/bits should be carbide or diamond tip.
- Amana Tools® 47106 – ½" diameter flush trim router bit (inside corner radius), ¼" shank
- Amana Tools® 45208 ¼" diameter plunge router bit, ¼" shank or equivalent (cutout starter)
- Circular saw with a carbide blade that has 7" diameter blade and 58 teeth (Amana # 575601) or equivalent tool
- Router for outlets
- Screw gun (for use only as described on page 6)
- Trowel that is specified by the adhesive manufacturer being used and/or electric or pneumatic caulk gun
- Extendable hand roller
- Measuring tape
- Straight edge
- Level
- Suction cups (if needed to position the panels on the wall)
- Drywall screws
- Shims (for floor spacing support during installation)
- ½" shims (for panel spacing)
- Blue painter's tape (if needed for protection or positioning)
- Chalk line or laser level (if needed for making measurements)
- Sand paper (if needed for painted or primed substrate)
- A table or work surface
- Cleaning cloths
- Cleaner such as acetone, mineral spirits, or solvent recommended by adhesive manufacturer to remove any dried adhesive

PERSONAL PROTECTIVE EQUIPMENT (PPE), CONSULT SDS FOR FULL LIST, EXAMPLES:

- Dust mask
- Eye protection
- Protective clothing
- Hearing protection as needed
- Ventilation and/or dust collection equipment as needed

APPROVED ADHESIVES FOR INSTALLING HARDSTOP® PANELS:

The following are the only approved adhesives for panel installation:

- GE **Supreme** (Not Advanced) Silicone Window & Door Sealant, Clear, or
- GE **Supreme** (Not Advanced) Silicone Kitchen & Bath Sealant, Clear, or
- GE SCS2000 SilPruf™ Sealant, white, or
- Titebond® Ultimate™ Advanced Polymer Panel Adhesive

IF TRIM IS BEING INSTALLED, THE FOLLOWING IS ALSO NEEDED:

- HardStop® Trim or trim by another manufacturer designed to fit a max material thickness of 0.0945" (or 2.4mm material)*
 - * Depending on design selected, HardStop® Panels can range from 0.0709" – 0.0945" (or 1.80mm – 2.40mm)
- Pneumatic finish nail gun
- 16-18 gauge nails, 1" long (25.4mm)
- GE **Supreme** Silicone Sealant Clear (Window & Door or Kitchen & Bath) and a caulk gun, or
- GE SCS2000 SilPruf™ Sealant, white
- Miter box
- Appropriate cutting tool for aluminum, such as circular or miter saw with an appropriate aluminum cutting blade. Metal snips may also be used, though the edge may not be as clean.
- If HardStop® Trim is not being used, colored 100% silicone caulk will be needed. Silicone caulk with a good color selection can be purchased through Color Rite™, Inc. www.colorriteinc.com
- Formica Group still recommends covering outside corners with molding.

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BLADE REFERENCE CHARTS

AMANA TOOLS® (OR EQUIVALENT MAY BE USED)

(D) Diameter	Teeth	Tooth Grind	Hook Angle	Kerf (B)	Plate (C)	(d) Bore	Pinholes	Tool Number
7 (180mm)	58	TCG	-6°	.110 (2.8mm)	.087 (2.2mm)	5/8 inch	—	575601
8 (200mm)	64	TCG	-6°	.110 (2.8mm)	.087 (2.2mm)	5/8 inch	—	586401
9 (230mm)	60	TCG	-6°	.110 (2.8mm)	.087 (2.2mm)	5/8 inch	—	596001
10 (250mm)	100	TCG	-6°	.126 (3.2mm)	.102 (2.6mm)	1 inch	—	510101
10 (250mm)	80	TCG	-6°	.126 (3.2mm)	.102 (2.6mm)	1 inch	—	510801
12mm	96	TCG	-6°	.126 (3.2mm)	.102 (2.6mm)	1 inch	—	512961
10 (250mm)	80	TCG	-6°	.126 (3.2mm)	.102 (2.6mm)	30 mm	2/7/42, 2/9/46 & 2/10/60	510801-30
12 (300mm)	96	TCG	-6°	.126 (3.2mm)	.102 (2.6mm)	30 mm	2/7/42, 2/9/46 & 2/10/60	512961-30
14 (350mm)	108	TCG	-6°	.126 (3.2mm)	.102 (2.6mm)	1 inch	—	514108
14 (350mm)	108	TCG	-6°	.126 (3.2mm)	.102 (2.6mm)	30 mm	2/7/42, 2/9/46 & 2/10/60	514108-30
16 (400mm)	120	TCG	-6°	.150 (3.8mm)	.126 (3.2mm)	1 inch	—	516121
18 (450mm)	120	TCG	-6°	.150 (3.8mm)	.126 (3.2mm)	1 inch	—	518121
20 (500mm)	120	TCG	-6°	.174 (4.4mm)	.134 (3.4mm)	1 inch	—	520121
160mm	56	TCG	-5°	2.5mm	1.8mm	20mm		MD160-565
210mm	72	TCG	-5°	2.4mm	1.8mm	30mm		MD210-725
260mm	68	TCG	-5°	2.4mm	1.8mm	30mm		MD260-685

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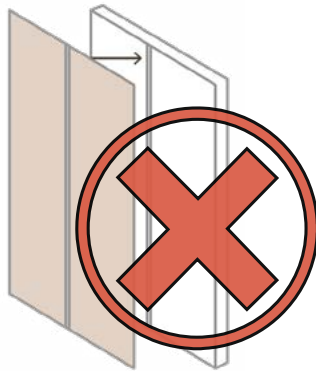


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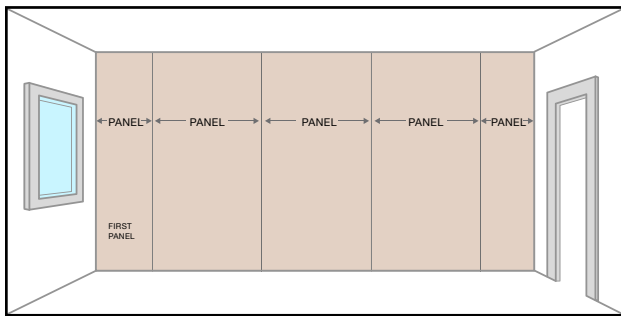
IMPORTANT INSTALLATION TIPS & REMINDERS:

- You will need a work area with a large surface to support one full HardStop® Panel flat while you cut the material and apply the adhesive.
- Use PPE whenever cutting or drilling panels.
- Have clean water, cleaner and rags on hand for cleanup. (Follow the adhesive manufacturer's recommendations for cleanup.)
- Do not position HardStop® Panel joints directly over substrate joints.

Do NOT position HardStop® Panel joints directly over substrate joints.



- Do not install HardStop® Panels directly to wall studs.
- A balanced look is important and should be a goal of installation. Always start with a center line measurement to ensure a balanced installation



- Do not nail through the HardStop® Panels.
- There should be no raw edge exposed. All edges of every panel should have trim, silicone caulk, or Color Rite, Inc. silicone caulk covering them.
- Remember to leave a 1/8" (or 3.175mm) gap between the trim/obstructions and the HardStop® Panels.
- If using colored 100% silicone to fill panel seams and gaps, you must also leave 1/8" (or 3.175mm) gap between panels and panels/obstructions.

- Remember that all inside corners need to be cut to 1/2" (or 12.7mm) minimum diameter (1/4" radius). Cut must be smooth and free of chipping.
- Always check adhesion by applying your chosen adhesive to a test area.

SUBSTRATE SURFACES PREPARATION AND INSTALLATION REQUIREMENTS:

All substrate surfaces must be flat and free of any loose debris that may keep the adhesive from bonding properly. Surfaces must be dry, fully cured and free of any contaminants. Always ensure that the drywall has been installed and finished to industry standards.

PAINTED DRYWALL:

The substrate surface must be flat. All painted surfaces must be sanded with sandpaper to ensure the exposure of clean drywall face paper.

Be sure to clean the surface after sanding to remove all loose particulates and dirt and use the recommended adhesive. Be careful not to sand through the drywall's face paper; only sand paint to expose the drywall surface paper.

NON-PAINTED DRYWALL:

The substrate surface must be flat. Finish only the tapered joints and corners so they are flat. Do not finish, prime or paint the surface of new drywall. If the area needs to be evened out, you may use joint compound. Any high or low spots will create a poorly finished wall and yield a poor bond. Make sure all dust and particulates are removed when finished.

JOINT PRIMING

- If using the [approved GE Silicone products](#) listed on page 2, do not prime any surfaces.
- Titebond® Ultimate™ – all drywall seams and corners must be primed. We recommend the use of Titebond® Original Wood Glue, thinned with 50% water, to be used as a primer.

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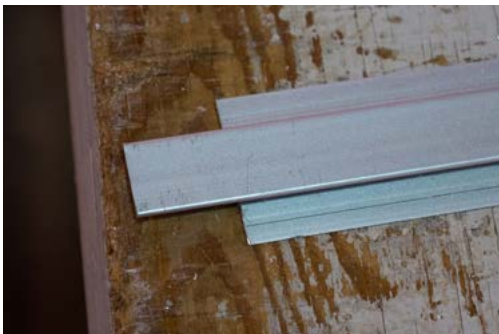
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BASIC INSTALLATION STEPS

1. While planning your install, consider the panel seams must be offset from the substrate joints. Plan for symmetry of your panels along your wall line.
2. Put on personal protective equipment (PPE).
3. Establish wall level line.
4. If not using trim, skip to step 8. Otherwise, cut trim to size. Miter corners and notch backs as needed.



Cut trim & miter corners



Division Bar with a notched back

5. Install top edge trim to wall using only one of the approved [GE Silicone products from page 2](#).



Adhere trim with only one of the [approved GE Silicone products from page 2](#)

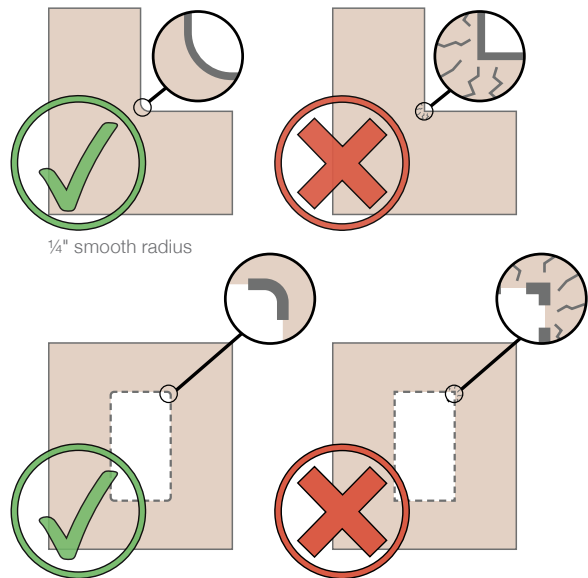
6. Use the nailer to put nails into bottom flange of trim.



16-18 gauge 1" nails used to hold trim

7. You may place painters tape on the outside face of any trim edge joints while drying.

8. Cut the panel to fit. A track saw must never be used to cut inside corners.



1/4" smooth radius



Cut panel

9. Dry fit panel to confirm it is plumb and level.
10. Mark any areas on panel where there will be cutouts (i.e. outlets).

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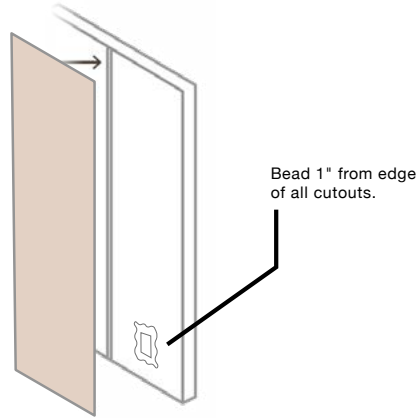
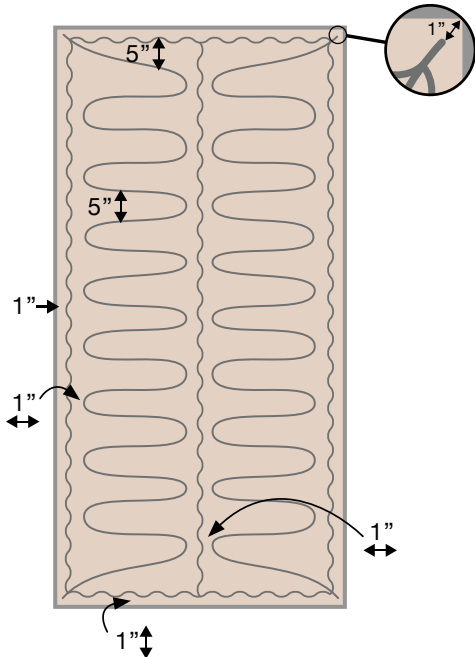
11. Clean wall.
12. Adhesive Options

- A) Titebond® Ultimate™ Advanced Polymer Panel Adhesive - Apply adhesive with adhesive manufacturer's recommended trowel to backside of panel. HardStop® Panels require 100% adhesive coverage on back of the panel only. Apply panel to wall (maximum 20 minutes after starting troweling). Refer to manufacturer's recommendations for open time.



Apply adhesive. 100% adhesive coverage required.

- B) If using one of the [approved GE Silicones](#) from page 2 - Apply 3/16" bead of adhesive to the backside of the HardStop panel in the pattern shown below with a pneumatic or electric caulk gun. Apply bead 1" from edge of any cutouts on drywall. Apply **immediately** to wall (maximum 12 minutes after starting bead laydown). Refer to manufacturer's recommendations for work life.



13. Install the panel by positioning it into the trim (if using), using shims to support bottom of panel. Remember to leave 1/8" (or 3.175mm) gaps.



Insert panel into trim

14. Confirm panel and trim are plumb. Adjust if needed. Suction cups can help with positioning.
15. Install drywall screws through bottom of panel ~9" from each side and ~1" from bottom (in a location where cove base will eventually hide) to support the panel until the adhesive dries. Use a router and appropriately sized bit to create oversized pilot holes when screwing into the panel. Shims can be removed once screws are installed or after adhesive is cured (refer to manufacturer's recommendations).

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- Use extendable hand roller (with 3 roller heads) across the entire panel to ensure a good bond. Roll from the center out to remove any air bubbles. Do not over press.



Use extendable hand roller

- Clean excess adhesive per adhesive manufacturer's instructions.
- Install the next trim piece (if using).
- Install all panels and trim pieces (if using) as you move in one direction around the perimeter of the room. Ensure an $\frac{1}{8}$ " gap between panels or inside trim. Use roller after each panel is installed. Make sure to clean adhesive as you go. Continue to support panels with drywall screws.
- Once all panels are installed, cut out all other openings for outlets, etc..
 - Use $\frac{1}{4}$ " (6.35mm) diameter plunge router bit to cut a small $\sim\frac{3}{4}$ " (19.05mm) diameter hole in the center of the outlet area and then route the entire opening with a $\frac{1}{2}$ " (12.7mm) diameter flush trim router bit.
 - Use the $\frac{1}{2}$ " diameter flush trim router bit to cut screw slots on the electrical boxes.
 - Make sure all electrical devices are not energized when cutting openings for them.
 - Opening must have $\frac{1}{2}$ " (12.7mm) minimum inside diameter.
- After adhesive is dry, remove the temporary drywall screws and apply cove base following the cove base manufacturer's instructions. Only adhesive-bonded cove base may be used. Do not nail or screw through cove base into HardStop® panels.

CUTTING TIPS:

- To reduce the potential for chipping, always cut the HardStop® Panels with the backside up when using a circular saw.
- All inside corners (i.e. for outlets) must be cut with a minimum diameter of $\frac{1}{2}$ " (12.7mm). Cut must be smooth and free of chipping.

- Whenever creating screw holes into HardStop® Panels, be sure they are oversized holes.
- A router bit will work, allow for some type of low profile washer head screws or an escutcheon to cover the cut hole.

TRIM TIPS:

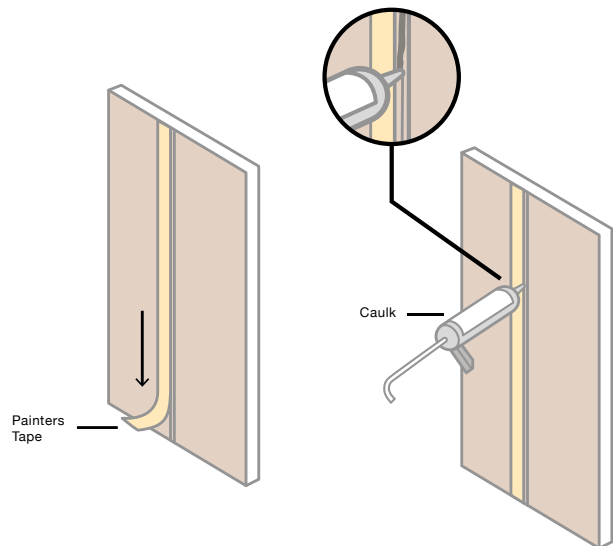
- One of the [approved GE Silicone products](#) from page 2 should be applied to back flange of all trim.
- Use battery or pneumatic nailer to secure back flange of trim to wall.
- At joints, miter cuts should be used for best results.
- Whenever joining vertical and horizontal trim pieces, notch the back of the vertical trim so it sits flush.
- You may use one of the [approved GE Silicone products](#) from page 2 inside of trim piece to further seal (i.e. in locations that require sanitary conditions).

COLORED CAULK SEAM TIPS:

100% silicone caulk may be used in place of trim, however, Formica Group requires the use of molding for any outside corner.

When using caulk, leave a $\frac{1}{8}$ " (or 3.175mm) gap for expansion at the joints at the top, bottom, and edges of the sheet.

Select a 100% silicone caulk that matches the panels.



Color Rite™, Inc. offers many color options.

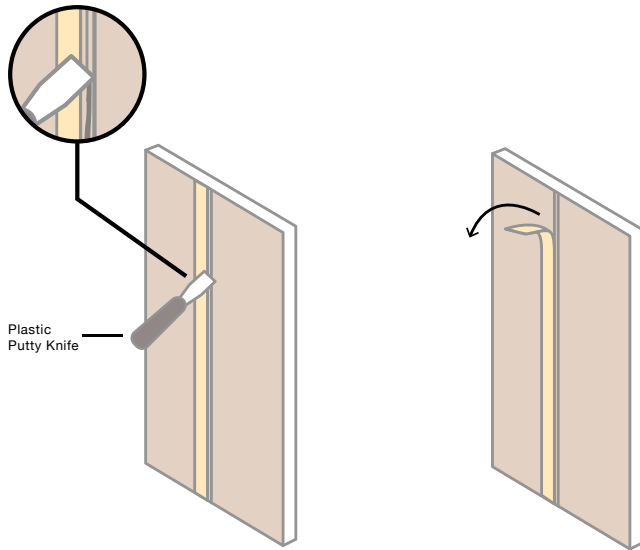
- Apply painter's tape on the face of the panels along the edges of the gap between the panels.
- Apply a $\frac{1}{8}$ " (or 3.175mm) bead of caulk in the gap. Be sure the joint is completely filled.

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- Remove any excess caulk immediately by smoothing joint flush to panels. No metal tools should be used as they can damage the face of the panel.



- Remove the painters tape immediately.
- Clean any caulk that is on the face of the panel immediately.

USE OF BUMPERS OR HANDRAILS:

Bumpers, crash rails, or handrails may be installed into HardStop® Panels.

- Follow the bumper, crash rail, and handrail manufacturer instructions to ensure a safe installation. Formica Group makes no representation or warranty that adopting a particular installation practice will assure your compliance to applicable laws and safety requirements.
- Be sure all attachments allow for panel movement by using oversize holes through Hardstop for all fasteners.

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PHYSICAL PROPERTIES OF HARDSTOP® DECORATIVE PROTECTION PANELS:

PHYSICAL PROPERTIES	TEST	HARDSTOP® PANELS
	NEMA LD3 2005	
Light Resistance	3.3	No effect
Cleanability	3.4	13
Stain Resistance	3.4	
Reagents 1-10		No effect
Reagents 11-15		No effect
Boiling Water Resistance	3.5	No effect
High Temperature Resistance	3.6	No effect
Ball Impact Resistance	3.8	
-in		71
-mm		1800
Radiant Heat Resistance Coil Method	3.10	>600 sec.
Coil Method		
Room Temp. Dimensional Change	3.12	
Machine Direction - %		0.27%
Cross Direction - %		0.22%
Wear Resistance - cycles	3.13	650

PHYSICAL PROPERTIES	TEST	HARDSTOP® PANELS
Water Absorption	ASTM D570	0.96%
Thermal Expansion	ASTM D696	2.0 x 10 ⁻⁵ /°C
Anti-bacterial	JIS Z 2801	
Chemical Resistance	SEFA 8.1	Pass

FIRE RESISTANT PROPERTIES	TEST	HARDSTOP® PANELS
Steiner Tunnel Test	ASTM E84	Class A Flame 0 Smoke 40
Surface Flammability	ASTM E162	Average is = 2.58
Smoke Density	ASTM E662	Flaming Ds(1.5) 0.3 Flaming Ds(4.0) 4.0 Non-Flaming Ds(1.5) 0 Non-Flaming Ds(4.0) 0.6
Federal Motor Vehicle Safety	FMVSS 302	Pass
Cone Calorimeter	ISO 5660	Peak HRR 35 kW/m ² Total Smoke 271 m ² /m ² Average THR 26 MJ/m ²

MECHANICAL PROPERTIES	ASTM TEST	HARDSTOP® PANELS
Flexural Strength	D790	
Ultimate	Machine Direction	121 MPa
	Cross Direction	103 MPa
Modulus	Machine Direction	17,600 MPa
	Cross Direction	17,500 MPa

Codes & Certifications	
GREENGUARD Gold	Approved

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LIMITATIONS

Product should be installed in environments that are regulated between 70 ± 5°F (18-24°C) and 35-50% humidity.

SIZES, THICKNESS & WEIGHT

SIZES:

Sheet width 48" (1,219mm)

Sheet length 96" (2,438mm) or 120" (3,048mm)

THICKNESS:

Grade H1: Can range from 0.0669"—0.0827" (or 1.70mm—2.10mm)

WEIGHT:

Approximately 0.739 lbs. per square foot

Weight can vary slightly based on decor pattern selected.

TO ORDER SAMPLES:

Please call U.S. 1-800-FORMICA™ (option 1)
or Canada: 1-800-363-1405 for ZIP-CHIP™ service.

HardStop® Panels can be purchased in most of the Formica® Brand colors. HardStop® panels coordinate perfectly with Formica® Brand Laminate products. To select colors for HardStop® panels, Formica® laminate samples should be used.

HOW TO SPECIFY

COLOR NUMBER

COLOR NAME

GRADE H1

FINISH 58 Matte (-43 Artisan™ -NG Natural Grain available on select colors)

SIZE 408 or 410 (-NG 4x8 only)

HardStop® Decorative Protection Panel 3 Part Spec document can be found on www.formica.com.

PROTECTING THE SURFACE

Before selecting the design, consider the type of use it will receive, as well as its color and reflective values. Dark colors tend to enhance scratches, marring and fingerprints.

SCRATCH AND IMPACT PROTECTION:

HardStop® Panels are resistant to scratches and impacts under normal use and cleaning conditions.

- Do not hammer on any HardStop® surface. Heavy blows from a hammer may crack or gouge the surface.
- Sharp or abrasive objects and unglazed ceramics materials may slice, scratch or cause premature wear on the surface.
- Abrasive pads, scouring powders or cleaners may permanently dull and scratch the decorative surface.

HOT OBJECTS:

- Hot objects, such as irons, hot appliances, cigarettes, etc. should not be placed directly against panel surfaces.
- Be aware that prolonged exposure to temperatures of 140°F (60°C) or higher may cause damage to the surface. The surface material can withstand heat up to 275°F (135°C) for short periods of time.

ORDINARY CLEANING:

HardStop® Panels are very easy to clean.

- In most cases, you only need to use a clean, damp, nonabrasive cotton cloth and a mild liquid detergent or household cleaner.
- Rinse with clean water, using a clean, non-abrasive cotton cloth.
- Dry the surface with a soft, clean, non-abrasive cotton cloth.
- HardStop® Aluminum Trim may not be cleaned with high pH cleaners, such as Formula 409®, Simple Green®, or Fantastik®, as this could dull the coloration.

Hard-to-clean areas may require special attention. Use a soft nylon bristled hand or vegetable brush, along with a mild liquid detergent- and-water solution or household cleaner. Clean the soiled area using a rotating motion. Rinse and dry the surface as indicated above.

To remove any leftover/dried adhesive from installation, cleaner such as acetone, mineral spirits, or solvent recommended by adhesive manufacturer may be used.

HardStop® Panels may not be sanitized using the UV sanitization method. UV exposure can damage or fade the surface.

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CHEMICAL DAMAGE:

Never use cleaners containing acid or alkali. These cleaners will mar, etch, corrode, and may permanently discolor the decorative surface. Also, make sure that bottles, rags, and other materials contaminated with these cleaners never contact the surface. Accidental spills or splatters from these compounds should be wiped off immediately, and the area rinsed thoroughly with water.

Examples of cleaners containing acid or alkali include, but are not limited to:

- ceramic cooktop cleaners
- oven cleaners
- rust removers
- coffee pot cleaners
- drain cleaners
- lime scale removers
- toilet bowl cleaners
- metal cleaners
- tub and tile cleaners

SPECIAL CLEANING RECOMMENDATIONS

FOR RESIDUAL GLUE:

Sometimes new panels may have a streaky appearance caused by adhesive used during fabrication. Clean with a non-abrasive cotton cloth and an adhesive solvent such as acetone. Use solvent sparingly, as excessive amounts may deteriorate the adhesive at the edges. Read and follow all warnings and instructions on the labels of all solvent products.

SPECIAL CLEANING RECOMMENDATIONS

FOR PAINT AND VARNISH:

Remove most oil-based paints, varnishes and lacquers from the decorative surface with a suitable solvent. Read and follow all warnings and instructions on the labels of all solvent products, and remember that most solvents are extremely flammable and could deteriorate adhesive at the edges. Remove most water-based paints with an ammoniated household cleaner. For stubborn paint spots, gently use a plastic, non-metallic, non-abrasive pad. Never use steel wool or other abrasive scouring pads.

SPECIAL CLEANING RECOMMENDATIONS FOR STAINS:

To remove or minimize stains, use full strength Fantastik® All Purpose Cleaner, Formula 409®, Pine-Sol® (original formulation) or other mild household cleaner on the affected area, and allow it to draw out the stain. If using a cleaner with high pH to remove tough stains, be sure not to let it touch HardStop® aluminum trim (this includes Fantastik®, Formula 409® or Simple Green® as they will dull the color). Blot with a clean, damp, non-abrasive cotton cloth, and then rinse with clean water. When a recommended cleaner changes its formulation, the change may be harmful to the decorative surface. Formica Group cannot be held responsible for these changes. Solvents such as denatured alcohol can also be used. Follow all directions and warnings on the solvent label because many are extremely flammable.

Stubborn or “fugitive” stains that may disappear on their own, after a short time or after repeated cleanings include:

- coffee and tea stains
- food stains
- fingerprints
- glass rings
- food dyes
- water marks

Stains which are stubborn or even permanent, and may not disappear include:

- cash register inks
- lemon juice
- food pricing ink
- marking pen inks
- indelible inks
- newsprint
- label inks
- wood stains

Some materials and liquids, such as dyes and pharmaceutical products, will permanently stain the HardStop® Panels.

Examples include:

- dermatological ointment/cream
- povidone-iodine
- hair dyes and rinses
- Red-2B dye
- laundry bluing
- silver nitrate
- Mercurochrome®
- tannic acid
- tar compounds

These stains may be reduced by applying a paste of baking soda and water on the area to pull out the stain. The paste will be slightly abrasive, so do not rub. Wipe up the paste with a clean, damp, non-abrasive cotton cloth, and then rinse clean with water.

Abrasive pads, scouring powders or cleaners may permanently dull and scratch the decorative surface making it susceptible to staining.

Periodic application of a self-cleaning wax can help minimize future staining.

HARDSTOP® DECORATIVE PROTECTION PANELS BY FORMICA GROUP



TECHNICAL GUIDE, USE & CARE, WARRANTY, AND INSTALLATION GUIDE

DISINFECTING RECOMMENDATIONS

The following branded cleaners and disinfectants are approved for HardStop® Panels when used according to recommended guidelines. The products are grouped by active ingredient type. All products on these lists meet the EPA's criteria for use against SARS-CoV-2, the virus that causes COVID-19. To avoid surface damage or discoloration, wipe the surface clean to avoid leaving disinfecting liquid open on the surface. It is also recommended to follow disinfecting with a warm water wash using a soft cloth and then dry the surface. Always follow the manufacturers' guidelines and safety precautions for these products.

For EPA updates on the current List N and Frequently Asked Questions about disinfectants related to coronavirus visit:

<https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

QUATERNARY AMMONIUM

- Clorox® Disinfecting Wipes
- Clorox Healthcare® VersaSure® Wipes
- Lysol® Brand All Purpose Cleaner
- Lysol® Kitchen Pro Antibacterial Cleaner
- Virex™ II
- Fantastik® Multi-Surface Disinfectant Degreaser
- Maquats®

QUATERNARY AMMONIUM: ISOPROPANOL

- Super Sani-Cloth® Germicidal Disposable Wipe
- Cavicide™ Wipes
- Sani-Prime® Germicidal Spray
- Opti-Cide3® Wipes

ISOPROPANOL, IPA, RUBBING ALCOHOL SODIUM HYPOCHLORITE (BLEACH)

- Clorox Healthcare® Bleach Germicidal Wipes
- Clorox® Brand Regular Bleach
- Sani-Cloth® Bleach Germicidal Wipe
- Caviwipes™ Bleach
- Dispatch®
- Lysol® Brand Bleach Mold/Mildew Remover
- All related brands containing bleach

HYDROGEN PEROXIDE

- Clorox® Commercial Solutions® Hydrogen Peroxide Disinfectant and wipes
- Oxivir™ Tb and wipes
- Accel® TB and wipes
- Peroxide Multi Surface Cleaner and Disinfectant
- Suretouch®
- Oxy-Team™ Disinfectant Cleaner

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TECHNICAL GUIDE, USE & CARE, WARRANTY, AND INSTALLATION GUIDE

LIMITED WARRANTY

Formica Corporation expressly warrants that, for a period of (1) one year from the date of first sale, this product will be reasonably free of defects in materials and workmanship, and that when properly stored, handled, fabricated and installed, will conform, within accepted tolerance, to applicable manufacturing specifications. Colors are subject to dye lot variations. DUE TO THE VARIETY OF USES AND APPLICATIONS TO WHICH HARDSTOP™ PANELS MAY BE PUT, FORMICA CORPORATION MAKES NO WARRANTY THAT THIS PRODUCT IS SUITABLE FOR ANY PARTICULAR PURPOSE AND MAKES NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, OTHER THAN THOSE SET FORTH ABOVE.

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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 (55) 5634-8620.

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Cincinnati, Ohio 45241
Printed in the USA