

ALYN

Aligning Design & Architecture

Material Information and Specification Guide

www.alynsurfaces.com

800-355-1000

ALYN

ALYN MATERIAL INFORMATION & SPECIFICATION GUIDE

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INTRODUCTION

Alyn is a customizable surfacing solution designed for today's specifier by offering timeless textures, modern solutions, and architecturally curated colors to suit your project perfectly. We present a unique opportunity to join two materials into one specification, which address a solution for multiple applications.

Our product is the proprietary use of Corian® for vertical surface applications married with a resin counterpart, producing a coherent logical collection that is easy to understand and specify.

Our textures have been designed with the lighting designer in mind. The possibility to create dramatic effects through a variety of texture options available in both Corian® or resin. Our system lets you combine our technological materials in new and dynamic ways through seamless soft radius inside and outside corners for a monolithic corner-less install. Alyn allows for a variety of resin translucency options bringing depth and layering to the space.

Alyn panels can be installed in a variety of different ways including direct adhere to the wall with silicone based adhesives, utilizing stand-offs, and with various channel systems. While these are the most common methods, they are not the only methods used to install this product. Each project should be considered unique and design intentions should be considered. For further direction related to installation, please consult with your Alyn Representative or call us at 800-355-1000.

ALYN PANELS - Resin Panel Offering

DESCRIPTION

The ALYN resin product offers color combinations with a Class A fire rating to create a myriad of design possibilities and outstanding performance. Layer color and textures to create a stunning focal point or architectural accent. ALYN resin boasts a low environmental impact and is up to 40% recycled content. It is the perfect option for interior applications.

FEATURES AND BENEFITS

High Performance Resin

- Specially formulated Polycarbonate with UV cap on both sides.
- 130 times the impact strength of glass
- Over 30 times the impact strength of acrylic
- Half the weight of glass
- Easy to fabricate and install

Low Environmental Impact

- 40% pre-consumer recycled content
- Qualifies for LEED MR Credit 4 and IEQ Credit 8.1 & 8.2 (daylight and views)
- 100% recyclable

Light Transmittance and Energy Efficiency

- Allows up to 85% of visible light transmittance
- Up to five times more energy efficient than glass

Building Codes

- Meets the criteria for approved interior finishes & light transmitting materials

Custom Design Solutions

- Variety of finishes available
- Color combinations
- Add-ons

RESIN SHEET DIMENSIONS

ALYN resin panels are offered in standard 4' x 8' sheet sizes. Custom lengths and widths are available as a custom option and may have longer lead time. ALYN resin length and width tolerance is +/- 2%.

	feet	inches	millimeters
Standard	4 x 8	48 x 96	1219 x 2438

RESIN FLATNESS TOLERANCE

Extending across the sheet, bowing is permitted to a maximum of 1/4" (6 mm) for each 48" (1.2 m) or fraction thereof. Panel is to be measured when laying horizontally under its own weight on a flat continuous surface.

SHEET THICKNESS

ALYN resin panels are available in 0.118" (3mm), 0.236" (6mm) and .472" (12mm) with a standard tolerance of +/- 10% of nominal.

Tolerance varies by décor.

GAUGE EQUIVALENTS*

Nominal Decimal (in)	Fraction Equivalent	Metric (mm)
.118 (Flat Only)	1/8"	3.0
.236	1/4"	6.0
.472	1/2"	12.0

*Actual dimensions may vary on textured sheets.

FLAMMABILITY

DATA

Property	Result	ASTM
Flammability (Burning Rate)	PASS, CC1	D-635
Smoke Density Rating (75% max)	68, PASS	D-2843
Self Ignition Temperature	1,070 °F (577 °C) pass>650 °F (343 °C)	D-1929

RATING

Gauge	Rating	Result	ASTM
1/8"	Class A	FSI: 5 SDI: 75	UL 723/ASTM E-84
1/4"	Class A	FSI: 5 SDI: 75	UL 723/ASTM E-84
1/2"	Class B	FSI: 40 SDI: 350	UL 723/ASTM E-84

FINISHES

ALYN resin products are available in a variety of surface finishes to provide different aesthetics and translucency. You may specify different finishes on each side of the sheet*. ALYN resin's heavier finishes such as sandstone and satin provide better protection against minor surface scratches.

RESIN FINISHES

Matte(Std) Gloss* Sandstone* Satin* Fibra*

*Not all finishes are available with all products. Fibra is standard on resin textures.

RESIN WEIGHT

ALYN Resin Panels		1/8"	1/4"	1/2"
Thickness	in	0.118	0.236	0.472
	mm	3.0	6.0	12.0
Weight / sq ft	lbs/ft ²	0.74	1.47	2.95
Weight / sq m	kg/m ²	3.6	7.19	14.39
48" x 96"	lbs	23.55	47.1	94.3
1219 x 2438mm	kg	10.7	21.4	42.8

All weights are estimated; actual weights will vary depending on décor.

EXPANSION/CONTRACTION

ALYN resin products will expand and contract nominally with changes in temperature. Please allow for expansion / contraction when installing fasteners, hardware, frame systems, or when edge butting sheets. The formula below can be used to calculate the appropriate allowance for the expansion and contraction of an ALYN panel:

Length, Width, or Thickness	x	Temperature Change	x	Coefficient of Thermal Expansion	=	Expansion Allowance
in	x	°F	x	.000037	=	in
mm	x	°C	x	.000044	=	mm

Example:

A 48" x 96" ALYN resin panel will be installed in an office building near the entrance. The coldest temperature of the panel in that location over the entire year is expected to be 50°F, and the warmest is expected to be 90°F. The temperature change will then be 40°F. The height would then change 0.142" from the coldest to the warmest temperature exposure, and the width would change 0.071".

RESIN MATERIAL PROPERTIES

Property	Result	ASTM
Type	Polycarbonate (PC)	
Specific Gravity (density to water)	1.20	D-792
Water Absorption	0.15%	D-570
Sound Transmission 1/8" (3mm)	31 db	E-90

RESIN MATERIAL PROPERTIES (Cont'd)

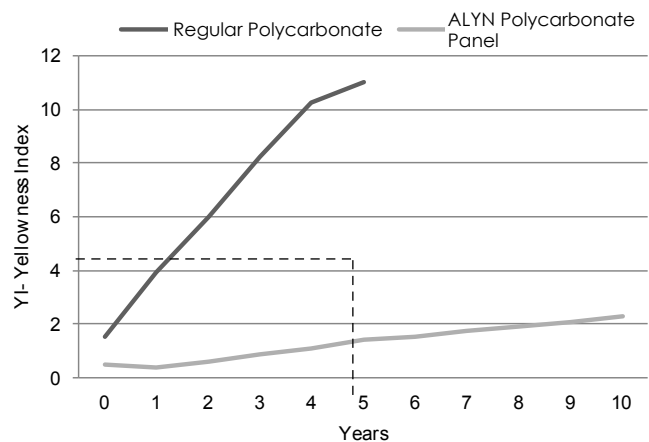
Property	Result	ASTM
Optical Refractive Index	1.59	D-542
Regular Light Transmittance	86%	D-1003
Haze Light Transmittance	1.1%	D-1003
UV - Resin Degradation	No	
Tensile Strength Max	9,500 psi (65.5 MPa)	D-638
Tensile Elongation Max	110%	D-638
Tensile Modulus	345,000 psi (2,379 MPa)	D-638
Flexural Strength Max	13,500 psi (93 MPa)	D-790
Flexural Modulus	345,000 psi (2,379 MPa)	D-790
Izod Impact Strength	16 ft-lb/in (820 J/m)	D-256
Rockwell Hardness	M-70/R-118	D-785
Abrasion Resistance (%Haze)	30% @ 100 cycles	D-1044
Max Continuous Service Temp.	194 °F (90 °C)	
Softening Temperature	297 °F (147 °C)	
Deflection Temperature @ 264 psi (1.8 MPa)	270 °F (132 °C)	D-648
Coefficient of Thermal Expansion	3.75x10 ⁻⁵ in/in °F (6.8x10 ⁻⁵ m/m °C)	D-696
Thermal Conductivity	1.35 BTU in/hr ft ² °F (.0019 W/cm °C)	C-177

Material properties apply to the resin itself.

CODE RATINGS

- Approved for CPSC (16CFR 1201) Categories I & II.
- Meets ANSI Z97.1-2004: American National Standard for Safety Glazing Materials.

UV TEST



Yellowness Index standard is < 5 in a 5 year period.

ALYN

ALYN PANELS - Corian® Solid Surface Offering

DESCRIPTION

The ALYN Corian® option is an advanced composite product used as an architectural and design material in a variety of applications. Supplied in sheets, it can be fabricated with conventional woodworking tools. ALYN Corian® surfaces are restorable, making them a perfect material option for high traffic areas where aesthetics and ease of maintenance matter most.

FEATURES AND BENEFITS

- Durable Acrylic Solid Surface
- Non-porous and will not harbor bacteria
- Easy to fabricate and install

Low Environmental Impact

- Nontoxic and nonallergenic to humans
- Meets or exceeds emissions guidelines for VOCs, HAPs and has achieved GREENGUARD GOLD Certification

SHEET DIMENSIONS

ALYN Corian® panels are offered in standard 1/4" x 30" x 98" (nominal) sheet size, with the option of 1/2" x 30 x 144" sheets*.

	<u>feet</u>	<u>inches</u>	<u>millimeters</u>
Standard	3 x 8.16	30 x 98	762 x 2489
	3 x 12	30 x 144	762 x 3658

SHEET THICKNESS

ALYN Corian® panels are available in 1/4" (6mm) and 1/2" (12mm).

Fraction Equivalent	Metric (mm)
1/4"	6.0
1/2"*	12.0

*May require longer lead time. Please consult with your ALYN Representative.

FINISHES

ALYN Corian® products are available in a standard matte surface finish. You can specify a high gloss or satin finish as a custom option on flat sheets to further customize your look.

FINISH OPTIONS

Matte (Std. on all) Satin & Gloss (flat sheets only)

FLATNESS TOLERANCE

Product dimensions are nominal. If tolerances are critical, review you needs with your ALYN Representative.

ALYN PANELS - Corian® Solid Surface Offering

PHYSICAL PROPERTIES

Property	Test	Typical Result
Density	ASTM D792	1.7g/cm ³
Approx. wweight per square foot 6mm (1/4")		2.2 lbs.
Approx. weight per square foot 12mm (1/2")		4.4 lbs.
Thermal Expansion	ASTM E228	3.9 x 10 ⁻⁵ m/m °C (2.2 x 10 ⁻⁵ in./in. °F)
Hardness - Rockwell "M" Scale	ASTM D785	> 85
Hardness - Barcol Impressor	ISO 19712-2 (ASTM D2583)	56

MECHANICAL PROPERTIES

Property	Test	Typical Result
Flexural Modulus	ASTM D790	1.2 x 10 ⁶ psi
Flexural Strength		10,000 psi
Tensile Modulus	ASTM D638	1.5 x 10 ⁶ psi
Tensile Strength		6,000 psi
Tensile Elongation		0.4 % min.
Compressive strength	ASTMC365	16,000 psi

FITNESS FOR USE

Property	Test	Typical Result
Light Resistance (Xenon Arc)	ISO 19712-2	Pass
Weatherability	ASTM G155	ΔE* ₉₄ <5 in 1,000 hrs.
Ball Impact Resistance: Sheets No Fracture - 1/2 lb. ball - 6mm	NEMA LD 3-3.8	36 in. (No failure at height)
Ball Impact Resistance: Sheets No Fracture - 1/2 lb. ball - 12mm	CSA B45.5-11/	144 in (No failure at height)
Wear and Cleanability	IAPMO Z124-2011	Pass
Stain Resistance	ISO 19712-2	Pass
Stain/Chemical-resistance test		Pass
Resistance to cigarette burns		Pass
Resistance to dry heat		Pass
Resistance to wet heat		Pass
Hot/cold cycle water-resistance test		Pass
Load test		Pass
Dimensional Stability		ISO 4586-2
Resistance to surface wear		0.18 % wt/25 revolutions
Fungal resistance	ASTM G21	ASTM Rating of 0, No observed growth on product at 100x power
Bacterial resistance	ASTM G22	No observed growth on product at 100x power
Microbial resistance	UL 2824 (ASTM D6329)	Highly resistant to mold growth
Coefficient of Friction (Slip Resistance)	ASTM C1028	0.94 - 0.95 (matte finish under dry conditions)
		0.50 - 0.64 (matte finish under dry conditions)
Boiling Water Resistance	NEMA LD 3-3.5	No visible change
High Temperature Resistance	NEMA LD 3-3.6	No change
Flammability, Surface Burning Characteristics of Building Materials	NFPA 101: Life Safety Code®	Class A
Flame Spread Index Surface Burning Characteristics of Building Materials	ANSI/UL 723 (ASTM E84, NFPA255	Flame Spread Index (FSI) <25
Smoke Developed Index Surface Burning Characteristics of Building Materials	ANSI/UL 723 (ASTM E84, NFPA256	Smoke Developed Index (SDI) <25

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PANEL ORDERING GUIDE

To order ALYN panels, simply follow these five easy steps.

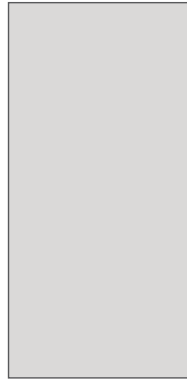
1. CHOOSE AN ALYN PANEL | 48"x 96" RESIN OR 30" X 98" (NOMINAL) CORIAN®



Horizontal Emboss
(Accentuates Width)



Vertical Emboss
(Accentuates Height)



Flat Panel
(No Texture)

2. CHOOSE A GAUGE

.118
1/4" | 6mm
(Flat resin only)

.236
1/4" | 6mm
(Standard)

.472
1/2" | 12mm

Due to weight, ALYN recommends the use of no more than 1/4" gauge when applying ALYN panels directly to a wall surface using adhesive.

3. SELECT A COLOR (See Appendix A for details and color names)



GLASS COLORS



METAL COLORS



STONE COLORS



WOOD COLORS



CONCRETE COLORS

Flat Resin: Select up to 3 color layers or 2 colors + opaque backer

Textured Resin: Select up to 2 color layers or 1 color + opaque backer

4. CHOOSE A FINISH

Gloss, Matte, Sandstone, Satin, Fibra

*Emboss side is always Fibra finish

5. CHOOSE A BACKER



INSTALLATION OPTIONS - Resin Panel Backpainting

Examine goods to assure that pattern, color, quantity and quality are as ordered prior to cutting or applying any adhesives or paints.

TOOLS & MATERIALS

- ❑ Water-based latex acrylic paint*
- ❑ Paint applicator(s): (Short nap paint roller, atomizer sprayer, or soft brush)
- ❑ Masking: (Tape or liquid masking)

PREPARATION OF SURFACE

ALYN Resin products can be painted using water-based latex acrylic paint. If the sheet has the factory-installed masking, remove masking from the side to be painted. Remove dust and any masking residue prior to painting. Follow paint manufacturer's guidelines for viscosity, methods, and volumes for optimum results.

Proper machining, forming, and fabricating techniques should be followed to reduce the chance of crazing and should be performed prior to painting (see the fabrication guide for further information). After fabricating, clean the sheet thoroughly.

PAINT APPLICATION

For spray painting, use an atomizing spray gun system that will uniformly distribute paint free of water and oil. The use of backlighting will aid in determining the uniformity of paint application. For rollers or brushes, apply multiple thin, even coats. As with any raw substrate, multiple layers may be required to achieve the desired result.

NOTE: The texture of the sheets and/or the slight tint of ALYN colors may cause slight variations in the color after backpainting.

Always test paint adhesion on a piece of ALYN material first before proceeding. If mounting the painted sheet to a substrate using adhesives, test the painted piece with the adhesive to make sure the paint and adhesive are compatible and perform adequately.

PAINT REMOVAL

When paint removal is necessary, immediately remove wet paint from the sheet using a soft, clean cloth. Mild soap and water may also be used. While not recommended, if the paint is already dry the paint manufacturer's recommended remover may be used with careful consideration to potential damage to the product. Most paint removers contain organic solvents harmful to ALYN sheets. Time in contact with the ALYN sheet, especially on high stress areas, should be minimized to reduce the chances of crazing.

** Test paint on a piece of scrap or small, inconspicuous area for compatibility and adhesion.*

All technical advice, suggestions, recommendations and services are based on information believed to be reliable. The samples and information supplied are intended for use by skilled persons at their own risk. Users should verify for themselves that the information provided is suited for user's intended application. ALYN makes no expressed or implied warranty, including, without limitation, the warranties of merchantability, fitness for a particular purpose (even if that purpose is known to ALYN), or from any course of dealing or trade usage regarding any materials supplied hereunder. This warranty does not cover damage caused by mishandling, misuse, improper installation, damage from excessive heat or exposure to weather, physical or chemical abuse, or acts of nature.

INSTALLATION OPTIONS - Wall Protection/Direct Adhere

BEFORE YOU START

Examine goods to assure that pattern, color, quantity and quality are as ordered prior to cutting or applying adhesive. If you have any questions about the proper installation of this product, please contact Alyn Sales Support at 1-800-355-1000 before proceeding.

TOOLS & MATERIALS

- Chalk line/plumb bob
- Polyethylene (4-8 mil), Kraft paper or scrap Wallcovering for slip sheeting
- Stiff paperhanger brush
- Sanding block
- Pressured wall roller
- Heavy-duty razor knife
- Straight edge

APPROVED CONTACT CEMENT:

3M Fastbond Contact Adhesive #30-NF

- Short nap paint roller & tray
- Trim Brush

Forbo L910W Linoleum Adhesive

- 1/16" x 1/16" x 1/16" Square notched trowel

PRIOR TO INSTALLATION

Storage: Materials must be stored flat in a clean and dry area above 50°F (10°C). Material should be stored in original packaging.

Environmental Control: Alyn and adhesive must be allowed to precondition for 24 hours at a minimum temperature of 65°F (18°C) but not exceeding 85°F (29°C) prior to installation. Wall temperature during installation should be a minimum of 65°F (18°C) and a maximum of 85°F (29°C). Temperature of installation area should be maintained at a minimum of 65°F (18°C) however, 75°F (24°C) is preferable. Do not install if relative humidity is greater than 80%.

Preparation of Surface: Surfaces to be covered must be clean, relatively smooth, dry and structurally sound. Loose paint or other wallcoverings must be removed. Nail heads, nicks, gouges, and other surface imperfections should be sanded smooth and sealed.

Backpaint: Please refer to Backpainting Instructions on page 9.

CUTTING

Cutting: .045" gauge Alyn sheets may be cut with a utility knife, using a metal straight edge as a guide.

Sawing: .060" and .118" gauge Alyn sheets may be cut using a circular saw, jig saw or saber saw.

Drilling: Holes may be drilled in Alyn with standard, high-speed drills.

Routing: Portable routers may be used for cutting Alyn to size, and work well on projects where there are a large number of similar size sheets to be cut.

DRY FITTING

1. Outline the area to be covered with chalk line or masking tape.
2. All trim pieces, including top caps, vertical dividers and corner pieces need to be slid onto the sheet prior to applying adhesive.
3. Leave a 1/16" (1.6mm) expansion gap between panels, door jambs and baseboards.
4. On interior surfaces of exterior walls, and any area subject to temperature variations, an expansion clearance of 1/8" (3.2mm) minimum must be allowed on all sides of the sheet.
5. Drill oversized holes when installing fixtures such as handrails, air ducts, etc. These items can inhibit the natural expansion and contraction of the sheet as temperature changes occur.

APPLYING CONTACT ADHESIVES

For complete installation instructions please reference manufacturer guidelines. Follow adhesive manufacturer's recommended safety precautions, and provide adequate ventilation.

3M FASTBOND CONTACT ADHESIVE #30-NF

1. Using a short nap roller, apply two coats of contact adhesive to the wall. Allow the first coat to dry thoroughly before applying the second coat. Cut-in the corners using a trim brush.
2. Using a short nap roller, apply one coat of contact adhesive to back side of Alyn panel (including any trim accessories).
3. Contact adhesive will dry in approximately thirty minutes. The longer you wait the stronger the initial bond will be. You will notice a darkening of color when the adhesive becomes dry. Once adhesive is dry, sheets must be installed within three hours.
4. Contact adhesive bonds immediately upon contact. Utilization of slip sheets is highly recommended to prevent accidental bonding.

FORBO L910W LINOLEUM ADHESIVE

1. Using a 1/16" x 1/16" x 1/16" Square notched trowel, apply adhesive to the wall.
2. Once a light touch produces little transfer of the adhesive to the finger, but a fir, touch will flatten and "smear" the adhesive (Do not allow the adhesive to dry), the Alyn may be applied.
3. Roll immediately to remove any trapped air. Install one sheet at a time.
4. Contact adhesive bonds immediately upon contact. Utilization of slip sheets is highly recommended to prevent accidental bonding.

INSTALLATION

1. Be sure that Alyn panel is clean prior to installation. Wipe the back side with a damp rag to remove any dust and allow to dry.
2. Align edges of Alyn with chalk line or tape, then carefully remove slip sheet. Smooth sheet into place using stiff paperhanger brush.
3. After sheet is on the wall, roll the entire surface with a heavy-duty pressure roller. Start from the center of sheet and work out, being cautious to prevent air pockets from forming under the sheet.
4. If trim accessories have not been used, seal any exposed joints with silicone sealant.

CLEAN-UP

1. Remove any adhesive residue immediately. DO NOT allow adhesive to dry on surface of Alyn or on tools. Refer to adhesive manufacturer's recommendations for removal of excess adhesive and layout-marks. Take care not to allow the solvent to contact Alyn panels.
2. Carefully remove adhesive and lay-out marks on walls using a solvent such as mineral spirits or naphtha, or the adhesive manufacturer's recommended solvent taking care not to allow the solvent to contact Alyn sheets.
3. Use clean rags to avoid re-depositing adhesive residue.
4. Rinse cleaned area thoroughly with water.

Disclaimer: We believe this information to be reliable and offer the information in good faith without guarantee, as conditions and methods of use are beyond our control. We recommend prospective buyers perform their own testing to determine product suitability for all purposes before adopting Alyn on a commercial scale. In no case is Alyn liable for direct, consequential, economic or other damages. Alyn disclaims all other warranties, expressed or implied, including the warranty of merchantability and fitness for a particular purpose.

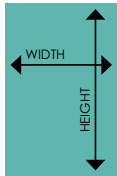
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INSTALLATION OPTIONS - Stand-Offs

How to Order

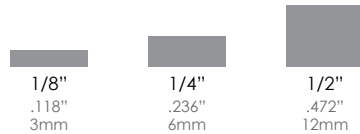
To order Stand-Offs, follow this simple 6 step guide:

- ① DETERMINE ALYN PANEL DIMENSIONS | Width & Height.



Standard ALYN panels are 4'x8' and can be cut to desired size.

- ② CHOOSE PANEL GAUGE | Thinner gauges require more Stand-Offs to prevent bowing. Please consult the Stand Off Placement Guide on the following pages.

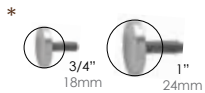


- ③ DETERMINE QUANTITY | Use the guide on the next page.

- ④ (A) CAP DIAMETER, & (B) BARREL LENGTH | These choices are mostly aesthetic. How prominent do you want the cap to be? How much space do you want between the cap and the wall?

Note: Circle is the standard cap shape. Custom cap shapes are available (low-profile, square, etc.), contact your sales rep. All stand offs are satin silver.

- Ⓐ Cap and barrel diameter Ⓑ Barrel length



*3/4" diameter is only suitable for up to .236" gauge



- ⑤ IDENTIFY SUBSTRATE | Wood, Metal or Concrete. Your anchor bolt will be different depending on what substrate it is being drilled into. We do not recommend drywall as an anchor. For drywall choose wood, and drill anchor into a stud.

① _____
dimension

② _____
gauge

③ _____
quantity

④ _____
cap & barrel diameter

barrel length

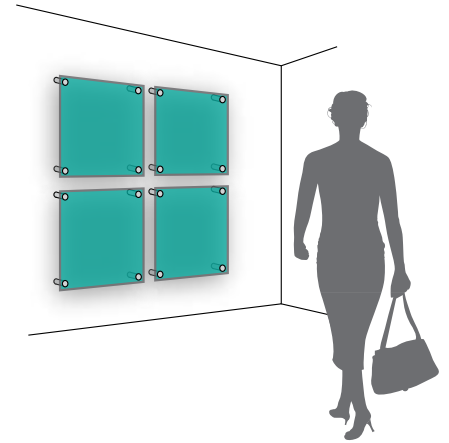
⑤ _____
substrate

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STAND-OFFS

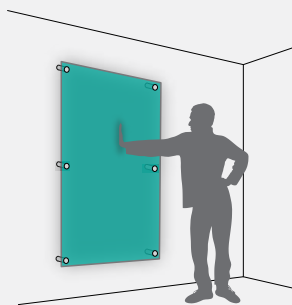
Vertical Quantity & Placement

thickness	size of sheet								
	2x2	3x3	4x4	3x6	4x6	2x8	4x8	4x10	
1/2" (12mm)									8
STAND-OFF QTY	4	4	4	6	6	6	6	8	
1/4" (6mm)									12
STAND-OFF QTY	4	6	9	9	9	10	12	12	
3/16" (5mm)									18
STAND OFF QTY	4	9	9	12	12	10	15	18	
<p>ALYN does not recommend these options due to the quantity of Stand Offs required to support the panel.</p>									
5/32" (4mm)									18
STAND OFF QTY	4	9	9	12	12	10	15	18	
1/8" (3mm)									24
STAND OFF QTY	6	7	12	15	16	14	20	24	



Four 4x4 Panels with Stand-Offs

PLEASE NOTE



LIGHT LOAD APPLICATIONS

The Stand Off configurations in this guide were created to support the weight of the panel only.

If you plan to use Stand Offs for light load applications, as shown to the left, we recommend using extra Stand Offs for support. Please call us for more information.

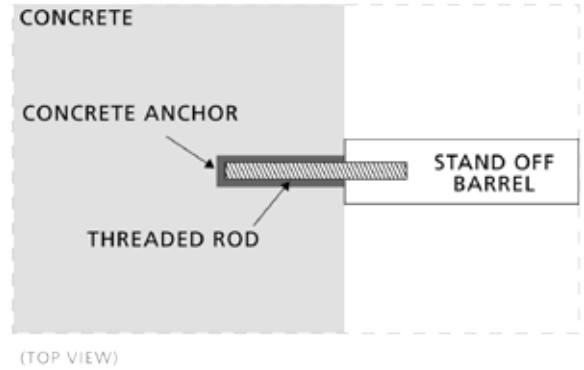
The above illustrations are to be used as guidelines only, as your individual installation may be different from these examples. They also illustrate general guidelines on mounting options for ALYN panels based on the weight of the panel itself. For installations requiring load considerations additional engineering may be required. No safety guarantee is expressed or implied.

ALYN

STAND OFFS Anchor Conditions

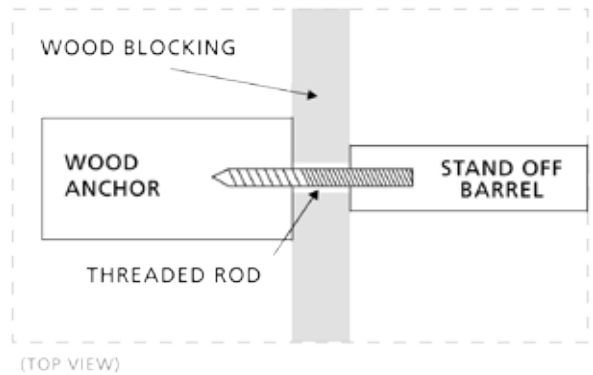
CONCRETE

Concrete anchors are used for securing stand-offs directly into concrete. A threaded rod is inserted into the anchor. A stand-off barrel is then attached to the rod for a secure mount.



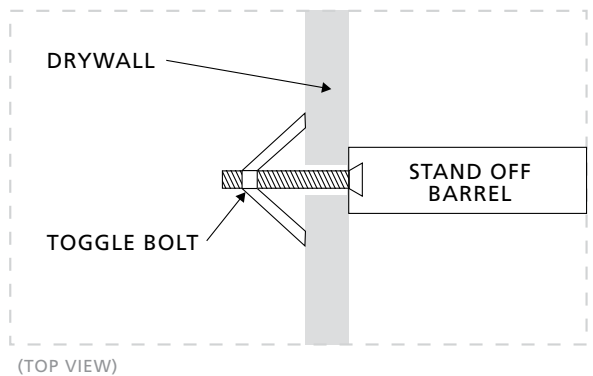
WOOD

For mounting stand-offs to wood (or drywall over a wall stud) screw a threaded rod directly into the wood. A stand-off barrel is then attached to the rod for a secure mount.



DRYWALL / METAL STUD / HOLLOW WALL

ALYN strongly recommends that all mounting hardware be attached to either a wood, metal, or concrete substrate. For those instances where drywall only mounting is required, special hardware considerations are needed, including specialized hardware and flanges for additional strength.



The above illustrations are to be used as guidelines only, as your individual installation may be different from these examples. They also illustrate general guidelines on mounting options for ALYN panels based on the weight of the panel itself. For installations requiring load considerations additional engineering may be required. No safety guarantee is expressed or implied.

INSTALLATION OPTIONS - Cable Systems

CABLE GRIP PLACEMENT GUIDE

		PANEL DIMENSIONS							
		2' x 2' 610 x 610 mm	2' x 4' 610 x 1219 mm	2' x 6' 610 x 1829 mm	2' x 8' 610 x 2438 mm	4' x 4' 1219 x 1219 mm	4' x 6' 1219 x 1829 mm	4' x 8' 1219 x 2438 mm	4' x 10' 1219 x 3048 mm
PANEL GAUGE	1/4" (6 mm)					ALYN does not recommend these options due to the quantity of grips required to support the panel.			
	CUSTOM 1/2" (12 mm)								

Gauges under 1/4" (i.e. 3/16", 5/32" and 1/8") are not recommended for use with cable systems due to the quantity of grips required to support the panel. For 1/2" gauges a Custom Solution is required.

The Cable configurations in this guide were created to support the weight of the panel in a vertical application only. If you plan to use the cables for horizontal or light load applications additional cables or a Custom Solution is required.

COMPONENTS



Single Grip
1/4" Gauge



Double Grip
1/4" Gauge



Cable Mount



Cable Ceiling Mount



Ceiling Track Base



Stainless Steel Cable



Decorative Cable
Escutcheon

FABRICATION: CUTTING, ROUTING & DRILLING

GENERAL RECOMMENDATIONS

If possible, leave the original masking on the sheet during cutting operations. In addition, cover working surfaces with a soft, clean cloth to prevent scratching. Use sharp, clean blades holding the sheet securely in place. Bring the blade to full speed before starting the cut and use compressed air to cool the blade and remove chips. Wear proper safety equipment including safety glasses, gloves, and protective clothing as required by local regulations.

Most saws commonly used for wood or metal should satisfactorily cut sheets made by ALYN. These include circular saws, band saws, saber saws, jigsaws, hacksaws, or handsaws. However, circular saws and band saws usually produce smoother, cleaner, faster cuts. Routing is also a common technique.

For the highest quality cut, use a triple-chip style carbide-tipped blade commonly used for plastics. Otherwise, chipping and irregular cuts may result. Use a slow and consistent feed rate.

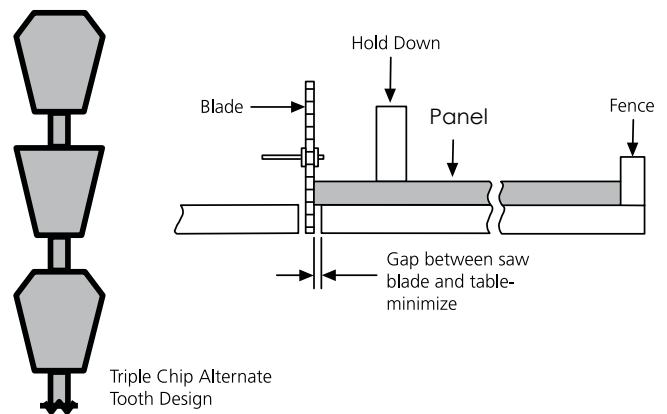
PREFERRED CUTTING METHOD | CIRCULAR SAW

A circular saw blade with carbide teeth utilizing the "triple chip" tooth design is the preferred method of cutting ALYN Panels. Table or overhead panel saws are normally used. Circular saws should be run in the speed range of 6000 - 8000 ft/min. Blades for cutting 3/32" and thicker material should have 3-5 teeth per inch. The hook or rake angle should be 10°-15°. When sawing a thin-gauge ALYN Panel, it is important to have a good supporting edge on the saw table with minimal gap between the saw blade and table supporting edge. Be sure tabletops are smooth and free from projections that might scratch or mar the ALYN Panel, when cutting.

CIRCULAR SAW TROUBLESHOOTING

Suggested Solutions	PROBLEM: Melting or Gummed Edges	PROBLEM: Chipping
	Increase blade tooth size	Decrease blade tooth size
	Reduce saw speed	Increase saw size
	Increase feed rate	Provide better clamping and/or support for sheet stack
	Use air to cool blade	Reduce feed rate
	Use blade lubricant compatible with Polycarbonate	Check blade and arbor for wobble
	Inspect blade for sharpness	Inspect blade for sharpness
	Check blade-fence alignment	
	Reduce number of sheets in stack	

DIAGRAM



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ROUTING

Routing produces a smooth edge on ALYN Panels and may also be used to cut curved or irregular shapes. Routers with a speed of 20,000 to 25,000 rpm are preferred. Use straight (fluted 2 or 3) carbide-tipped or high-speed steel router bits. Bits should be 1/4" to 1/2" diameter for best results. Use a router with at least 1 H.P. motor. Special care must be used when routing. Use proper guarding and eye protection. Stock feed rates must be monitored closely. Feeding ALYN Panels at excessive rates can cause vibration and cracking. Routing with sharp, two-flute, straight cutters produces very smooth edges. Spiral-cut router bits have also been found to work successfully depending on the application. It is especially useful for trimming the edges of flat or formed parts, or parts too large or irregular in shape to cut with a band saw. Portable, overarm, and small table routers work equally well. It is important to feed the sheet against the rotation of the router bit and to provide a fence for sizing when making straight cuts.

DO	DON'T
Practice on pieces of scrap before cutting parts.	Cut ALYN sheet without wearing proper safety equipment.
Use recommended saw blades.	Cut ALYN sheet with a dull blade or cutter.
Use slow, consistent feed rate.	Apply excessive clamping pressure.
Hold sheet firmly while cutting to minimize vibration.	Use a blade with side-set teeth.
Use compressed air to minimize heat buildup, especially for a sheet more than 5 mm (0.195 in) thick.	Scribe-break sheet.
Use just enough clamp pressure to prevent vibration.	Remove safety guards from equipment.
Feed against the rotation of the blade or tool.	

DRILLING

ALYN Panels can be easily drilled using a standard drill press or handheld drill with sharp, clean drill bits. Drill bits designed for use with plastic are recommended. Bits designed for use with polycarbonate have been found to work well with ALYN Panels. Standard drill bits can, on occasion, be used but may have to be ground or filed to reduce the depth or angle of cut. As with any plastic sheet product, it is important to keep vibration to a minimum to prevent chipping or cracking. Hold the sheet securely in place when drilling but avoid excessive clamping pressure. Regulate pressure and speed until a continuous spiraling chip is observed. Use air or water as a coolant if required. Using cutting oils may cause crazing. Be extremely careful if using taps or self-tapping screws; tapping creates notches that can result in stress cracks because polycarbonate is a notch sensitive material, like most clear plastics. Recommended drill speed is 350-1750 rpm. Move the drill bit in and out to remove plastic shards. In general, the distance between the edge of the panel and the hole should be at least 1.5 times the panel thickness.

DO	DON'T
Use sharp drill bits designed for plastic.	Apply excessive clamping pressure.
Use just enough clamping pressure to prevent vibration.	Use a dull drill bit.
Use a load spreader to distribute clamp pressure evenly.	Use power tools without proper protection.
Hold sheet firmly while cutting to minimize vibration.	
Use compressed air to prevent overheating, especially if sheet is more than 4.8 mm (0.187 in) thick.	

ALYN CLEANING PROCEDURES - ALYN Resin and ALYN Corian® Solid Surface

The proprietary UV surface treatment on ALYN Resin panels significantly improves long-term performance. Periodic cleaning of both ALYN Resin and ALYN Corian® panels using proper procedures and compatible cleaners is recommended to prolong service life. For general cleaning, it is recommended that the following instructions and cleaning agents be used.

PROCEDURES

1. Wash with a mild solution of soap or detergent and lukewarm water.
2. Using a soft cloth or sponge, gently wash the sheet to loosen dirt and grime and rinse well with clean water.
3. To prevent water spotting, thoroughly dry with chamois or cellulose sponge.
4. Avoid the use of abrasive cleaners, squeegees and/or other cleaning implements that may scratch or gouge the coating.

AGENTS

Cleaning agents which have been found to be compatible with ALYN panels under laboratory conditions.

Aqueous Solutions of Soaps and Detergents

- Joy®
- Palmolive Liquid®
- Windex D with Ammonia D®

Organic Solvents*

- Naphtha VM&P
- Hexcel F.O 554 (Butyl Cellosolve)

Alcohols

- Methanol
- Isopropyl Alcohol

*All residual organic solvents should be removed with a secondary rinse.

If a material is found to be incompatible in a short-term test, it will usually be found to be incompatible in the field. The converse, however, is not always true. Favorable performance is no guarantee that actual end-use conditions have been duplicated, therefore, these results should be used as a guide only and it is recommended that the products be tested under actual end-use conditions by the user.

GRAFFITI REMOVAL

- Butyl cellosolve (for removal of paints, marking pen inks, lipstick, etc). The use of masking tape, adhesive tape or lint removal tools works well for lifting off old weathered paints.
- To remove labels, stickers, etc., the use of kerosene or VM&P naphtha are generally effective. If the solvent will not penetrate sticker material, apply heat (hair dryer) to soften the adhesive and promote removal.
- For ALYN Corian® only, minor cuts, scratches, and stains can be removed by using a fine sandpaper and Scotch-Brite™ pads. Deeper cuts or impact damage such as cracks may require an authorized Corian® fabricator/installer to make inconspicuous repairs.

DISCLAIMER

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ALYN

CARE & HANDLING - ALYN Resin and ALYN Corian® Solid Surface

NOTICE

PLEASE CAREFULLY INSPECT ALL ALYN SHEETS PRIOR TO CUTTING, DRILLING OR FABRICATING. CONTACT ALYN AT 800.355.1000 IMMEDIATELY REGARDING ANY DAMAGE OR DEFECT. FAILURE TO DO SO MAY JEOPARDIZE YOUR RIGHTS TO WARRANTY REPLACEMENT AND/OR REIMBURSEMENT FOR SHIPPING DAMAGE.

ALYN panels are crafted using standard materials and are intended for interior use only.

CLEANING

Use warm water, mild soap and a soft sponge or cloth to clean ALYN. Any acrylic cleaner may also be used. Do not use alcohol, glass cleaners, acetone, lacquer thinner, solvents or abrasive compounds. Do not use squeegees, scrapers or synthetic rags that may scratch the panels. Novus cleaner and polish is an approved product for a clean shine that also protects from static build up.

HANDLING & FABRICATION

ALYN Resin products ship with a protective masking that should not be removed until fabrication is complete. All ALYN products can be fabricated using standard woodworking tools. See Page 16 for more details on cutting, routing and drilling recommendations.

Always store ALYN panels on a flat, even surface supported fully across the entire sheet.
Always confirm the correct ALYN sheet orientation (front/back and top/bottom) before fabricating.
Always firmly support the ALYN sheet and cutting tool to avoid chattering and chipping.
Always use a continuous flow of air at the cutting tool to dissipate heat during cutting.
Always use vinyl or nylon grommets and washers with through-bolt fasteners and adequate expansion gaps.
Always remove masking within 90 days of receipt of order.

Never slide sheets or objects across surface panel.
Never store ALYN panels in direct sunlight or moisture or in extreme temperatures above 100° F (37° C).
Never expose ALYN material to solvents or solvent vapors.
Never over-tighten through-bolt fasteners. This may cause ALYN products to crack.

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GENERAL POLISHING & BASIC SCRATCH REPAIR - ALYN Resin

HANDLING

DO: Use a soft cotton cloth. The type of polishing cloth you use will make a difference. Ideal cloth is nonabrasive, absorbent, and lint-free.

DON'T: Reuse cloths. Reusable cloths can retain abrasive particles which can damage the surface.

CLEANING & POLISHING

NOVUS No. 1 PLASTIC CLEANER & POLISH

Gently cleans all ALYN material without scratching. Leaves a smooth, clean, lustrous shine that is greaseless, resists fogging and finger marking, repels dust and eliminates static. This is a general purpose, daily use cleaner. Contains no abrasives or harsh chemicals. Use it on all ALYN material.

If the surface is extremely dirty, apply NOVUS No. 1 liberally and wipe using long, sweeping strokes. Do not use pressure, as large dirt particles may scratch the plastic. Re-apply NOVUS No. 1. Polish using short, circular strokes with a clean portion of the cloth. When surface is thoroughly clean and uniformly covered, buff to a slippery glaze with a clean cloth. Surfaces buffed to a high glaze are more resistant to dust and future scratching. Reapply NOVUS No. 1 regularly to maintain the anti-static, smudge and scratch resistant properties.

NOVUS No. 2 FINE SCRATCH REMOVER

Removes fine scratches, haziness and abrasions from most ALYN surfaces. With repeated use, NOVUS No. 2 restores faded and discolored areas. Removes the damage instead of filling it in. Buffs out quickly. After restoring, seals with a coat of polish.

Observe condition of the surface to be treated. The deeper the scratches, the greater the pressure required to remove them. If the surface is dirty, clean with NOVUS No.1 before applying NOVUS No. 2. Shake well. Test in an inconspicuous area. Apply NOVUS No. 2 liberally. Using a clean, soft cloth, polish with a firm back-and-forth motion at right angles to the scratches. Keep the cloth saturated with polish at all times. When the worst scratches have been polished out, reapply NOVUS No. 2 uniformly in a circular motion to the entire surface using short, circular strokes and light pressure. Allow to dry to a light haze. Using a clean portion of the cloth, buff the surface to a slippery glaze using firm, short strokes. This procedure is imperative in achieving the best results. For heavy scratches, multiple applications of NOVUS No. 2 or application of NOVUS No. 3 may be required. Follow with NOVUS No. 1 for best results.

NOVUS No. 3 HEAVY SCRATCH REMOVER

Removes heavy scratches and abrasions from most ALYN surfaces. Use when damage is too severe to be restored with NOVUS No. 2 polish. Requires use of NOVUS No. 2 for final finishing.

Shake well. Test in an inconspicuous area. Apply NOVUS No. 3 liberally. Using a clean, soft cloth, polish with a firm back-and-forth motion at right angles to the scratches. Keep the cloth saturated with polish at all times. Continue polishing until only fine scratches remain. Using cloth, remove all remaining polish; this is very important! Using a clean cloth, apply NOVUS No. 2 in a circular motion uniformly to entire surface. Polish using light pressure until NOVUS No. 2 dries to a light haze. Using a clean portion of the cloth, buff the surface clean. Follow with NOVUS No. 1 for best results.

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GENERAL POLISHING & BASIC SCRATCH REPAIR - ALYN Corian® Solid Surface

HANDLING

DO: Use a soft cotton cloth. The type of polishing cloth you use will make a difference. Ideal cloth is nonabrasive, absorbent, and lint-free.

DON'T: Reuse cloths. Reusable cloths can retain abrasive particles which can damage the surface.

CLEANING & POLISHING

Start with Common Household Cleaners. For most residues, all you need to clean ALYN Corian® is warm soapy water, ammonia-based household cleaner, or a dedicated countertop cleaner. Do avoid window cleaners, however, as they can leave a waxy build-up that dulls the surface.

Preventing Other Damage

In most cases, ALYN Corian® surfaces can be repaired if damaged. Avoid getting strong chemicals, such as paint removers, oven cleaners, etc., on your Corian® countertop. If a spill does occur, promptly flush the surface with water to fully rinse off the chemical. Boiling water alone will not damage your ALYN Corian®. However, it is a recommended practice to run cold water from the faucet while pouring boiling water into the sink.

- Avoid getting the bleach solution in your eyes or on bare skin. Always follow the bleach manufacturer's safety instructions when working with bleach.

REMOVING CUTS AND SCRATCHES

Because the beauty of ALYN Corian® solid surface goes all the way through, ALYN Corian® solid surfaces are renewable. You can remove minor cuts and scratches yourself by following these instructions. Deeper scratches may also be removed, but repair is best done by professionals.

Removing Minor Cuts and Scratches on Flat Panels:

- Pour some mild abrasive liquid cleanser, such as Soft Scrub®, on a damp sponge or cloth and rub over area using small circular motions, from the front to the back, then side to side, overlapping the circles until the entire area has been cleaned.
- Rinse thoroughly with clean water and wipe surface completely dry. Check to see if blotchiness is gone. If not, repeat procedure applying more pressure on the sponge or cloth. Continue over all affected areas until all film is removed.

Note: While this procedure may remove or minimize the look of very fine scratches, other deeper scratches may remain. They may be removed by following the procedure below or you may hire a professional refinisher. Contact ALYN directly for referral.

- First, wash the area where the scratch is located, following the instructions found in this guide, to remove any film on the surface.
- With the surface still wet or dry, use 60 Micron finishing paper in a random sanding pattern such as circles or figure-eight. Use a light touch. Pressing too hard may actually leave deeper scratches.
- Clean with water and dry thoroughly. Check to see if sanded area blends with rest of the panel. Please note that sanded area may not perfectly match remainder of panel. Rub over a large area to blend in sanding.
- If needed, continue the sanding process using a grey ScotchBrite™ pad (wet preferred) until the desired gloss level* is achieved. Clean the panel with water and dry thoroughly between each step.

* Contact your ALYN Representative if you are uncertain what type of finish is on your panels.

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EDGE FINISHING

Some applications may require edges of ALYN panels to be exposed. Finishing these edges should be done according to the recommendations below to ensure a pleasing appearance.

RESIN - MATTE PROCEDURE

- Clamp part to work table to minimize vibration
- Use 220 grit sandpaper on a random orbital hand sander to take saw/router marks out
 - Do keep sander perpendicular to edge to prevent rounding edge
 - Don't use excessive pressure to dig into part
- Use 400 grit sand paper on a random orbital hand sander to remove 220 grit marks
 - If easing the edge, perform this step prior to continuing
- Use 3M Scotch Brite (Maroon) 5" pad on random orbital hand sander along edge to ensure consistent matte edge

RESIN - GLOSS PROCEDURE






















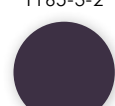
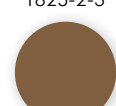
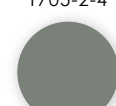
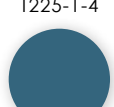








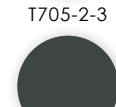
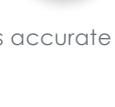
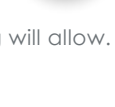
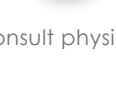
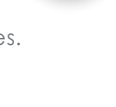
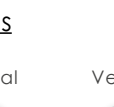
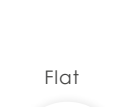


- Clamp part to work table to minimize vibration
- Use 220 grit sandpaper on a random orbital hand sander to take saw/router marks out
 - Do keep sander perpendicular to edge to prevent rounding edge
 - Don't use excessive pressure to dig into part
- Use 400 grit sand paper on a random orbital hand sander to remove 220 grit marks
- Use 600 grit sand paper on a random orbital hand sander to remove 400 grit marks
 - If easing the edge, perform this step prior to continuing
- Use fine grade steel wool pad in linear movements (dry) too remove 600 grit marks
- If size permits, at Buffing wheel, with cotton wheel spinning at full speed, apply buffing compound 3W770A (white), if part size is too large, use hand buffer at a speed of 4
- On cotton wheel, using slight pressure and a "back and forth" motion polish edge to gloss
- On flannel wheel, using slight pressure and a "back and forth" motion polish edge to gloss

Corian® - SATIN PROCEDURE

- Clamp part to work table to minimize vibration
- Use 60 micron sandpaper on a random orbital hand sander to take saw/router marks out
 - Do keep sander perpendicular to edge to prevent rounding edge
 - Don't use excessive pressure to dig into part
- Use 3M Grey ScotchBrite™ pad with orbital hand sander to remove grit marks. If easing the edge, perform this step prior to continuing

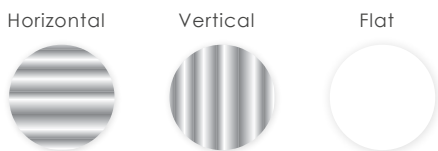
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APPENDIX A - Architecturally Curated Colors

	Glass	Metal	Stone	Wood	Concrete
Corian®	Glacier White 	Pearl Grey 	Silver Grey 	Clay 	Grey 
Resin	T245-3-5 	T805-7-5 	T825-2-5 	T605-2-2 	T825-7-4 
	T205-1-5 	T705-3-4 	T085-3-3 	T815-2-5 	T705-6-4 
	T245-3-4 	T705-7-4 	T085-3-1 	T815-4-4 	T705-5-4 
	T245-1-4 	T815-6-5 	T165-3-2 	T825-2-3 	T705-2-4 
	T225-1-4 	T825-4-5 	T255-3-4 	T075-3-2 	T705-7-3 
	T225-2-3 	T825-5-5 	T265-3-3 	T815-5-2 	T705-2-3 
					
					

Color is as accurate as printing will allow. Always consult physical samples.

Textures



All texture options available in Corian® and resin.

Custom Resin transparency options available



Flat Resin: Select up to three colors or two colors + opaque backer
 Textured Resin: Select up to two colors or 1 color + opaque backer

ALYN

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ALYN Material Information and Specification Guide