

# INSTALLER NANUAL

HOW TO INSTALL ARCHITECTURAL FILM

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Bodaq is an architectural decorative film that is a self-adhesive, stretchable, lightweight, durable, high-quality finishing material made for interior applications. Bodaq is applied using an acrylic type of adhesive, which has an adhesive surface with grid grooves for air-bleeding air bubbles between the film and the substrate. The air bubbles are released along these grooves, enabling the film to be quickly and easily affixed to large or complex surfaces.

Note: The actual structures and materials may be slightly different from each series

# PRODUCT SPECIFICATIONS

#### **Roll Specification:**

- weight 65 lbs
- width 48"
- length 164 ft.
- Film thickness: 0.2 mm (8 mil (8/1000 inches)
- Composition: PVC (Polyvinyl Chloride)

# STORAGE AND DELIVERY CONDITIONS

- For storage and delivery, stack cartons (film rolls packages), so that their labels face the same side.
- Do not stack more than 7 cartons, and do not stack more than 1 pallet
- Do not drop cartons, the edge of the product may crack or damage
- The product should be stored indoors in a clean place with a temperature above 10C and under 38C (50F to 100F), and away from direct sunlight and moisture
- The product must not be exposed to weather conditions in the open air. The product was designed for interior use only
- Use within one year
- When storing rolls, prevent them from unrolling by tightly rolling and taping them by hand. If stored film loosens on the roll, the release paper may detach from the film

# **ECO-FRIENDLY SPECIFICATIONS**

Hyundai L&C's sites acquired environmental management system ISO 14001 and health safety management system and KOSHA/K-OHSMS/OHSAS 18001 certification.

Bodaq Interior Film is an eco-friendly solution:

- ✓ It is free from harmful heavy metals (lead, cadmium, mercury, hexavalent chromium, etc.)
- √ Formaldehyde (HCHO), the substance that causes sick house syndrome, is not released.
- ✓ Minimized release of volatile organic compounds (TVOC, toluene, etc.)
- ✓ It meets the Safety Standard (KF mark standard) applied to wallpaper and paperboard
- ✓ It meets the safety requirements for hazardous chemicals in the Common Safety Standards of Children's Products
- ✓ It has excellent antimicrobial and anti-mold properties

Bodaq carries Eco-Friendly certification for its ability to abide by the most stringent standards for the minimized release of volatile organic compounds (VOCs).

Bodaq Interior Film has obtained the Atopy Safety Mark from the Korea Atopic Association as a building material that does not emit such harmful substances as formaldehyde, toluene, benzene, and styrene, which can cause atopic dermatitis and aggravation.

Carbon Footprint Mark reveals how much carbon dioxide was produced during the full life cycle of a product - in its manufacture, transport, use, and disposal. Bodaq Interior Film is acknowledged by the Environmental Product Declaration in accordance to "Environmental Technology and Industry Support Act" GWP: 1.96 kg CO2 eq./m2

Bodaq Interior Film satisfied the Group Standard Certification Criteria of Korea Air Cleaning Association which is certified by Healthy Building Material Certificate.

Korea Eco-Label. This certification, granted by Korea Environmental Industry and Technology Institute, a state-run eco-labeling body, recognized Bodaq Interior Film as an eco-friendly product that uses less raw materials and energy, and generates less pollution compared to other products with the same function.

# **FIRE SAFETY**

Bodaq Interior Film meets Class A (Class I) fire and smoke ratings - the lowest fire spread rate and minimal smoke production. This means that Bodaq can be installed in high-risk areas - airports, elevators, healthcare facilities, hospitality amenities, transport, etc.

#### **Test Method:**

ASTM E-84 Standard Method of Test for Surface Burning Characteristics of Building Materials, which is an equivalent to UL723 Standard Test Method for Surface Burning Characteristics of Building Materials

#### **Result:**

Bodag finishes meet Class I or A rating

#### **Test Method:**

KS F 2271:2016 Testing method for incombustibility of internal finish material and element of buildings

#### Result:

Incapacitation time - 14.9 min

Note: The test was conducted under the following conditions: Heat condition - sub heater: 3 min, main heater: 3 min. Environmental condition:  $(20.0 \pm 1.0) \text{ C}$  (52 ± 1)% R.H.

#### **Test Method:**

DIN 4102-1 Test of Flame-Retardancy - fire behavior of building materials and elements

#### **Result:**

Building material class B1 Not easily flammable

Note: For this test method Bodaq withstood the test specified in DIN 4102-16 using the 'Brandschacht' apparatus specified in DIN 4102-15

Bodaq has been approved by Korea Fire Industry Technology Institute as a flame retardant material in accordance with the provisions of Article 36-1, 37-1 of the Fire Facility Establishment Maintenance and Safety Supervision Law, and Article 9, 12-1 of the Fire Service Equipment Type Approval Enforcement Regulation.

# **ELEVATOR SAFETY COMPATABILITY**

Bodaq Interior Film is TSSA, ASME A 17.1 in the USA and CSA B44 in Canada approved. The code makes specific requirements to address issues of fire resistance, structural integrity, and electric shock in the elevator cab. The American Society of Mechanical Engineers (ASME) reviews the standards regularly. The Code has been last revised in 2019 implementing some changes to door requirements, seismic requirements, etc.





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# TOOLS



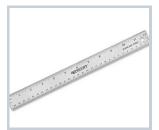
# **REQUIRED TOOLS**

Having the proper tools on hand is essential to perform a quality wrap. Fortunately, a simple tool kit is all that is necessary to succeed. Your essential tools should include: See appendix A for links to tools

- 1. Razor blade knife with replacement blades
  - a.9 mm knife
  - b. 18 mm knife
- 2. Solid 48" straight edge ruler and 12" ruler
- 3. Measuring tape
- 4. Bodyguard knife Used for cutting backing paper
- 5. Heat gun with adjustable heat settings
- 6. Sandpaper and sanding block Multiple grit between 120grit-320grit
- 7. Alcohol and water solution (spray bottle) and lint-free towels
- 8. Screwdriver
- 9. Squeegee
- 10. Bodaq water-based primer and 3M Primer 94
- 11. Painter's tape and drop cloth
- 12. Needle or pin



1. Razor blade knife



2. Straight edge ruler



3. Measuring tape



4. Bodyguard knife



5. Heatgun



6. Sandpaper



7. Alcohol and towels



8. Screwdriver



9. Squeegee



10. Bodag primer



11. Painter's tape



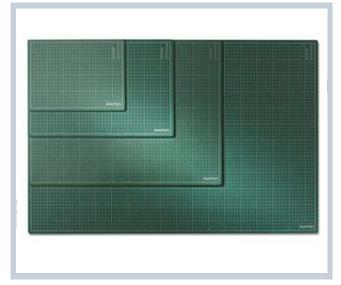
12. Needle or pin

# ADDITIONAL HELPFUL TOOLS

- 1. Material roller Rolls of the architectural film come in 50 meters increments and weigh approximately 75 lbs. A material roller will allow you to easily unroll and reroll a length of the film neatly and quickly.
- 2. Cutting mat
- 3. Three-rung step ladder
- 4. Crevice tools



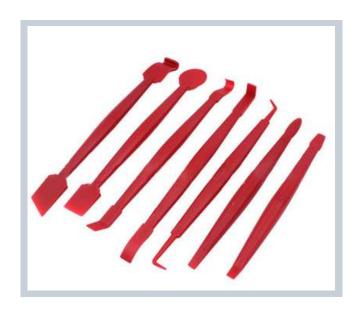
1. Material roller



2. Cutting matt



3. Step ladder



4. Crevice tools



# **KNIVES**

Knives are one of the most frequently used tools and proper handling and care is important. This is the most likely cause of injury. Keep a standard first aid kit with plenty of bandages and wound cleaning products. There are some simple guidelines that will help reduce the number of injuries.

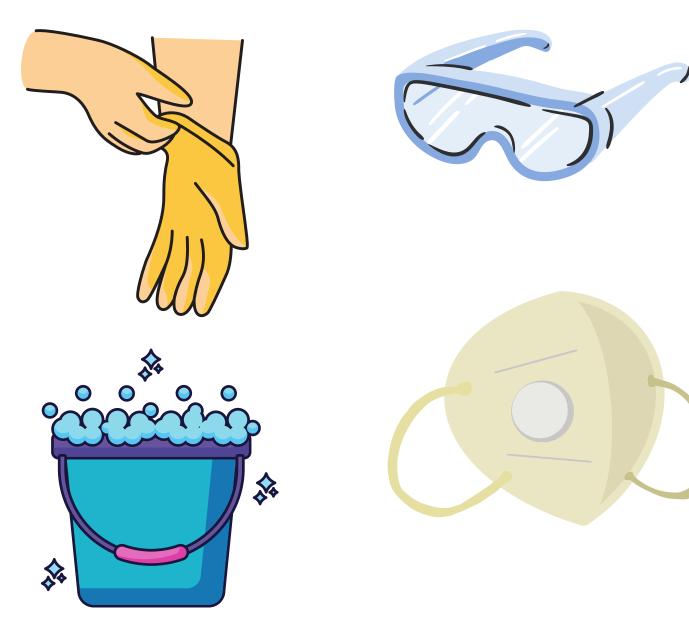
- Use the right tool for the job. Different knives are designed for different jobs. Do not use a small knife to try and cut through thick material, this can lead to the blade breaking unexpectedly or slipping.
  - Knives are not prybars or screw drivers take the time to use the right tool for the job
- When cut is finished slide the blade back into the knife
- Ensure the knife blade is sharp, dull blades are more likely to slip and cause injury or simply damage the material. When in doubt use a fresh blade.
  - Do not leave knife blades can get stuck in the bottom of shoes or cut fingers when picking up debris.
  - It is a good idea to have a small separate container for discarded blades.
- Use a straight edge or guide when cutting lines, you can get a 48" ruler with a cutting guide to help protect you, you can find a link in the tool section
- When cutting towards yourself ensure pull the knife in a direction to your side and not directly toward your body.
- Keep your non-cutting hand out of the path of the blade.
- Keep your eyes on what you are doing, do not look away while cutting



# **CHEMICALS**

When chemicals are used, ensure you are aware of the Material Safety Data Sheet (MSDS) warnings for the chemicals. Here is a list of general precautions when using chemicals.

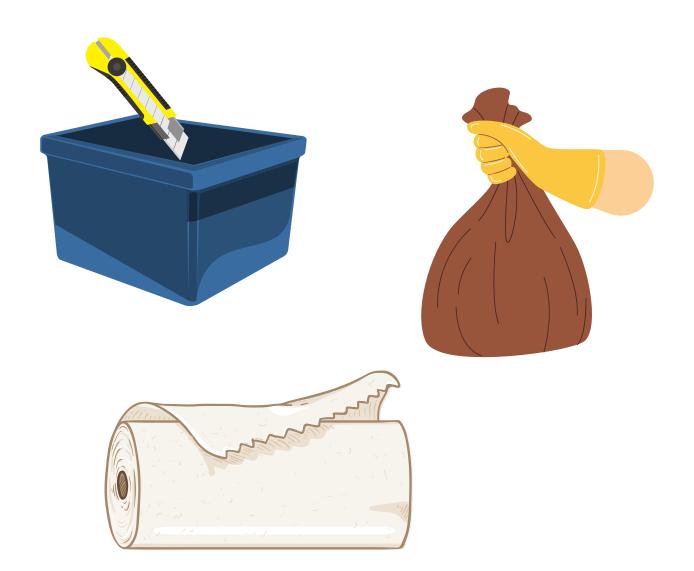
- Wear nitrile gloves. They provide good protection from most chemicals
- Ensure good ventilation
- Wear safety goggles
- Have an N95 respirator available and stored correctly for when using certain chemicals
- Have soap and water available for cleaning skin from chemical spills/splash or water to rinse out eyes.



# **CLEANLINESS**

It is important to keep workplaces clean and clutter free. It adds to the professionalism and helps make the working environment better for everyone. Backing paper, tools and equipment should not be left laying around where people could step in them and slip or get cut by errant blades.

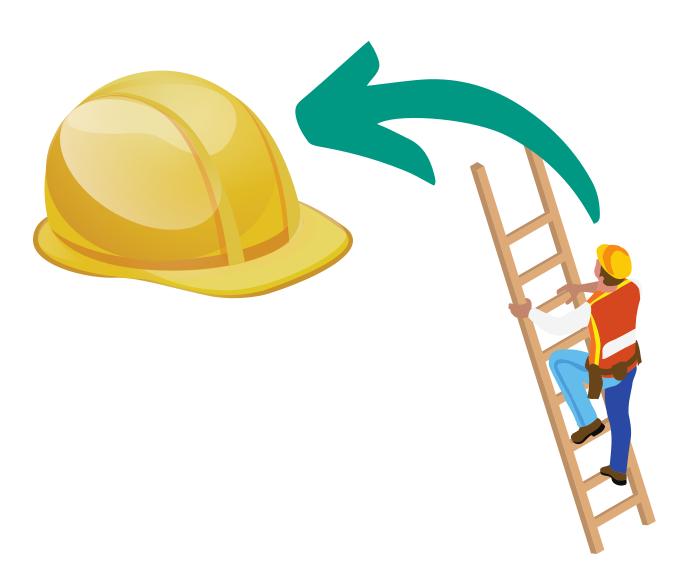
- Backing paper can be very slick and large pieces of backing paper can be a tripping hazard.
- Keep a garbage bag or receptacle near the working space to easily discard material.
- Knife blades can get stuck in the bottom of shoes or cut fingers when picking up debris.
- It is a good idea to have a small separate container for discarded blades.
- Ensure to have paper towel available in case primer or other liquids spill. This ensures quick and easy cleanup and again reduces likelihood of someone slipping or surfaces being ruined.



# **HEIGHTS**

Most work is done from the ground, but precautions need to be taken when working from heights even when it is only a small step ladder.

- Complete as much work as you can while you are on the ground.
- Ensure that the equipment that you're using for the job is strong, stable and suitable enough to get the job done. Inspect and maintain them regularly.
- Be careful when you are working near to a fragile surface.
- Ensure that you are protected from falling objects.
- Ensure the equipment can handle the weight of yourself and the material
- Don't try to reach too far when on a ladder or stepladder.
- Do not lean or place the ladder on fragile surfaces.





- 1. Optimal film application temperature: 15 C o ~ 25 C o (59 F ~ 77 F).
  - i. When the temperature is too low, there may be adhesive failure or film swelling.
- ii. When the temperature is too high, the film may be difficult to apply because it becomes more flexible.
  - iii. Do not cut the film under the low temperature conditions, as it may split.
- iv. Adhesive performance improves gradually after application and reaches its best strength in  $3 \sim 7$  days.
- 2. Furniture removal
- 3. Taping and tarps for easy clean up and protecting surfaces from accidental damage, please cover floors and furniture
- 4. Remove necessary hardware (some hardware/locks and mechanisms should only be removed by professionals or left in place and worked around)
- 5. Surface repairs scrapes and gauges should be filled and sanded smooth
  - i. See appendix B for suggestions on common repairs
- 6. Sanding it is important to have a smooth surface for the film to create quality results, try to finish surfaces with 320-grit sandpaper when sanding is needed
- 7. Clean all surfaces to be wrapped thoroughly, ensure there is no oil, grease or other contaminants that could prevent adhesion. Mix 50% isopropyl alcohol and 50% water will be the best option for cleaning. If a sticky substance remains on the surface from previous gluing or taping, you can spot clean the stain with acetone. Be careful, acetone has a strong odor and can burn the skin if left on too long, use nitrile gloves and ensure good ventilation
- 8. Wipe surfaces one last time to ensure surface is contaminant and dust free

# **PRIMERS**

**Primer 94** – Best suited for corners, edges and high-tension surfaces – two or more applications of primer 94 may be required for certain high-tension surfaces

**Bodaq Water Based Primer** – Best suited for larger surfaces such as walls and tables. Bodaq water-based primer should be mixed 1:1 with water, except when applying to MDF panels then mix 3:2 primer to water as MDF absorbs water.



There are 4 techniques that must be mastered before installation for a client that will equip you for wrapping any surface you find in the field. They are:

- 1. Flat surface wrapping
- 2. Sharp or flat corner and edge wrapping
- 3. Rounded surfaces, corners, and edge wrapping
- 4. Seam wrapping (double cutting)

# **FLAT SURFACES**

Flat surfaces are the most basic type of installation. The front face of a simple cabinet door is an example of a purely flat surface

**Goal:** a properly aligned, bubble free, crease free installation of the film onto a flat surface

#### **Step 1.** *Measure the surface area to be covered*

Let's assume we have a flat cabinet door that is exactly 32" by 21" like the cabinet door pictured below. Add 2" to both measurements – 34" by 23" for the cabinet this gives us flexibility in applying the material and we can trim the material after installation

If you are wrapping the material around the sides of the cabinet door then add 2"/side you are

going to wrap around. So the 32" by 21" cabinet door would require 36" by 25" of material

#### **Step 2.** *Measure and cut the material*

The backing of the Bodaq film has cutting guidelines in metric

Note: pay attention to the direction of the print of the material and directional requirement of the surface to be covered.



#### Step 3. Line up the film

Peel the backing paper of the vinyl film two inches down from the upper edge of the cut material (that will be placed along the upper edge of the cabinet surface). Fold the 2" strip of the backing paper down firmly so it stays out of your way while you place the first part of your install at the top of the cabinet door. Ensure the grain patterns of the material are in alignment with the cabinet



Step 4.

Stick the beginning edge of the vinyl along the top surface of the cabinet door.

#### Step 5.

With your squeegee, rub the material from side to side to get a uniform adhesion and to remove any air bubbles. The vinyl has air channels printed into the adhesive side so the air that forms the bubbles can easily be pushed out and removed at the film's edge.

Note: You want to provide gentle, but firm pressure as you squeegee from side to side. Too much pressure can leave small visible scratches on the film and ruin an otherwise beautiful result.



#### Step 6.

With your free hand, peel back the vinyl a few inches at a time while you follow behind with the squeegee from side to side placing the material down firmly eliminating all air bubbles that you see. Continue this process until the entire surface is covered and all air bubbles are removed.

# SHARP CORNERS AND EDGES

**Goal:** understand the two methods of applying the film to surface edges and corners.

Getting a tight adhesion with early invisible seams and corners is the most difficult, and one of the most important, aspects of the film installation process. There are two methods of doing so:

- 1. 45-degree cuts at the corners of your surface and wrap the resulting tabs in a way that hides any possible seams. That is a quick and effective method for achieving good results. This method is quick, gets decent results, but leaves a definite visible seam that must be minimized.
- 2. Heat gun to soften the material and gently stretch it over cornered surfaces to get a very tight, seam free result.

This method results in a seamless, tight wrap, but has a few disadvantages:

- i. Heating and stretching weakens the vinyl somewhat and can make the material vulnerable to tearing. Sharp corners can easily poke through the heated and stretched vinyl.
  - ii. Patterns can become visually distorted if stretched too much.
- iii. Third, when you stretch the material, you can cause an excess flap of material that can be difficult to apply without leaving even more wrinkles that must be worked out of your final product.
- iv. Too much heat can cause the material to wrinkle, which could force you to recover the surface from the beginning or to remove and patch the offending area.

With practice, heating and stretching can become a valuable weapon in your arsenal for achieving high quality wraps in challenging areas.

#### **METHOD 1. Cutting at 45 degree angles**

Note: this method is suitable for nearly any corner, whether you are wrapping mounted doors or unmounted cabinets, tables, etc.

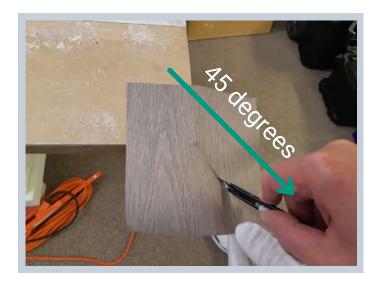
#### Step 1.

Locate which side of each corner is unlikely to be visible once the surface is mounted in its finished state. A high cabinet door is unlikely to be visible from the top, likewise, a lower tiered cabinet door edge is not going to be visible from along its bottom edge, which is close to the floor.

#### Step 2.

Apply a layer of primer 94 onto the corners and edges of the item being wrapped. Let it dry for approximately 5 minutes.

**Step 3.**Make a cut in the vinyl from the edge of the corner outward at a 45 degree angle.



Step 4.

Use your heat gun to gently heat the vinyl that covers the edges.

#### Step 5.

Pull the softened material over the edge, firmly apply the film along the side. Beginning from the center, firmly press down the film and work toward the corners. Remember to use your squeegee to press out any air bubbles. If you have a narrow side edge, you can use your thumb to press the material down against the surface. Stop 1"-2" before the corner.

#### Step 6.

Starting from the edge of the cabinet that is least likely to be seen, apply your first fold 90 degrees from the side of the surface that is likely to be visible toward the side that is visible.



#### Step 7.

Trim away the excess of the tab on the visible side.

#### Step 8.

Fold the cut material from the visible side to the less visible side.

#### Step 9.

Trim away the excess of the folded material.

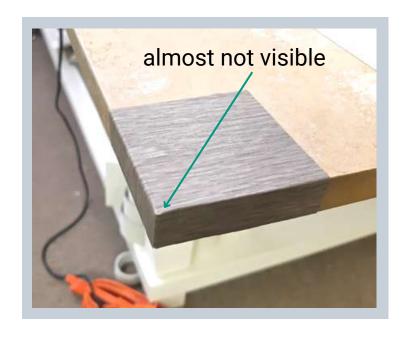
#### Step 10.

Trim the folded 45 degree tab, leaving about % of an inch finished overlap or a triangle for more strength in hidden corners.

#### **Step 11.**

Perform a final trim, to get clean, straight lines where the film crosses the edge to get a neat, straight seam in the non-visible corner. If the seam is still visible, use your heat gun to soften the film and blend the seam into the underlying vinyl. This method, with practice, will result in a nearly invisible seam located on a non-visible corner of your surface.

A finished result can be seen in the photo below. This corner shows how even a small, barely visible seam can be hidden from view. Remember, even though a seam can often be hidden, you want to make it as undetectable as possible.



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#### **METHOD 2. Heating and Stretching**

*Note:* This method of the film application to a corner by heating and molding the film to the corner or rounded surface is effective but requires practice.

#### Step 1.

Apply primer to the edges and corners of the surface to be wrapped. Let the primer dry for 5 minutes.

#### Step 2.

Apply the film to the flat part of the surface leaving 2-4 inches of overhanging film at the edges.

**Step 3.**Gently heat the film at the corners and edges until the film becomes soft and pliable.



Step 4.

Starting at the corner, carefully stretch and apply the film over the edge and corner of the item you are covering.



#### Step 5.

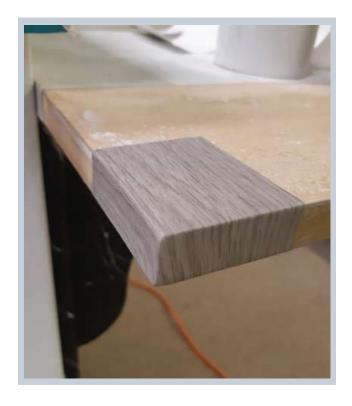
Use your hands and fingers to smooth out any wrinkles that may appear on the film you are working with.

*Note:* it takes time and practice to learn the nuances of stretching the heated film without tearing or overly warping the film.

#### Step 6.

Continue stretching and applying the film smoothly to the underside of the corner. The wrinkling can be pushed beyond the first quarter inch of the underside. Cut the underside material at about a quarter of an inch on the underside at the border of the smooth and wrinkled sections. Discard the wrinkled end piece of material leaving a neat, smooth quarter of an inch flap of material adhering to the underside. This smooth quarter inch section will provide the necessary strength to keep your corner and edge wrapping secure and in place.





# **ROUNDED CORNERS AND EDGES**

**Goal:** Understanding how to approach wrapping rounded edges and corners.

*Note:* If you should need to wrap a rounded surface, like the edges of a round table top, you will need to use the heating and stretching (**Page 25, Method 2**) described in the preceding section. If the surface being covered is completely circular, you will notice that the process will be easier than stretching the material around sharp corners. Still, practice and care during application will provide you with a high degree of proficiency quite quickly.



1. Prepare the surface with Bodaq primer



2. Cover the surface



3. Wrap using a heat gun



4. Finish the other side and cut

# SEAMS - OVERLAP AND DOUBLE CUT

**Goal:** Performing overlap and double cut seams at material intersection so that visible seams can be minimized

Seams at the intersection of two pieces of vinyl can be difficult to hide. These seams can be found primarily on walls or other pieces that are wider than 48". Overlap seams are the preferred method. An overlap seam consists of applying the edge of one piece of material over the edge of the other, we usually use a 1cm overlap. This method is a little bit more visible than the double cut method but is less prone to shrinkage and failure. Double cuts are often preferred by designers but can be prone to shrinkage and after some time has passed there may be a 1-2 mm gap between the two pieces of film. It is therefore important to ensure when you do a double cut seam that you follow all the necessary steps to decrease the likelihood of the reveal becoming apparent. By following the steps below, and with practice, you will be able to perform overlap and double cut seams effectively.

**Note:** the eye is drawn to horizontal stripes more easily than to vertical seams. Apply with the seams running vertically.

#### OVERLAP AND DOUBLE CUT SEAMS

*Note:* This method of the film application to a corner by heating and molding the film to the corner or rounded surface is effective but requires practice.

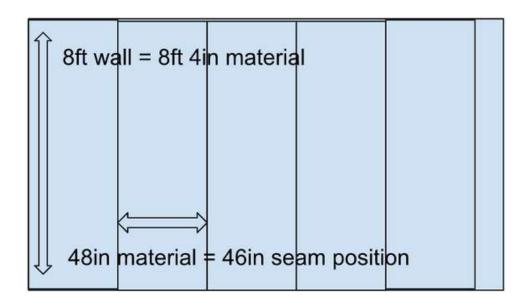
#### **OVERLAP**

#### Step 1

Make sure the surface is clean, smooth and dust free. We recommend applying Bodaq primer to the surface to increase adhesion strength. (some VOC free paints act as an adhesion inhibitor so it is a good idea to use a small piece of film to do a test pull on a painted surface, in an inconspicuous area. You want to ensure the film will adhere well)

#### Step 2

Measure out the amount of film you will need to wrap the surface. Ex: if the wall is 8ft high give yourself 8ft 4in. this will give you enough material for an overlap as well as some flexibility if the wall or application is not perfectly straight. The picture below demonstrates that you would need 6 - 8ft 4in pieces of film.



Use the backing paper cutter/bodyguard knife to cut the backing paper. Along the vertical edges cut the backing paper about 1.5 Inch along each side. Along the top edge (horizontally) cut the backing paper about 1ft from the top and again 2in below the first cut.

#### Step 4

Once the Bodaq primer has dried sufficiently (minimum 4 hrs, preferably overnight) remove the 2in piece of backing paper near the top once you have positioned the film on the wall in the place you want it. This first placement is very important as it sets the stage for the rest of the application so take extra time to ensure it is straight.

#### Step 5

Start removing the backing paper downward, do not remove the 2 vertical side pieces. Slowly and in a vertical motion apply the film to the wall working the air out and ensure you are staying straight.

#### Step 6

Go back to the top of the wall and carefully apply the film up to the ceiling, ensure the film with the exposed edge does not touch the ceiling as it may pull off paint or textured surface.

#### Step 7

Apply the rest of the sheets of film ensuring that you overlap the edge pieces by at least 1 in.

Tape the overlapped edge pieces down, allowing the film to rest at this point is a good idea, if possible give it a day or more.

#### Step 9

Using a laser level put a straight vertical line down the center of your overlap seam. Then using a straight edge to help guide you cut through the top piece of film, ensuring that you do not ensure a straight 1cm overlap (if the bottom piece of film is wavy you may need to cut it appropriately as well). Remove backing paper, apply the film you want on the bottom first then apply the other film overtop. You want the outside edge of the top film to be placed away from the angle of sight. Ex. if you are standing in the middle of the room you would and looking at the wall you want the edge of the top piece to be facing away from you.

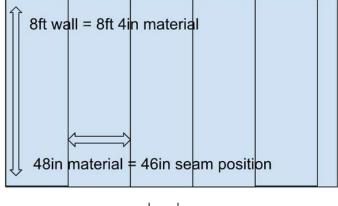
#### **DOUBLE CUT**

#### Step 1

Make sure the surface is clean, smooth and dust free. During this process determine where you want the seams to be on the wall. Divide the wall into 46 inch sections horizontally, this will help you determine where the seams will be. Then paint a 2in strip where the seams will be with a semi gloss color matched paint. We recommend applying Bodaq primer to the surface to increase adhesion strength after the paint has sufficiently dried. (some VOC free paints act as an adhesion inhibitor so it is a good idea to use a small piece of film to do a test pull on a painted surface, in an inconspicuous area. You want to ensure the film will adhere well)

#### Step 2

Measure out the amount of film you will need to wrap the surface. Ex: if the wall is 8ft high give yourself 8ft4in. this will give you enough material for an overlap as well as some flexibility if the wall or application is not perfectly straight. The picture below demonstrates that you would need 6 - 8ft 4in pieces of film.



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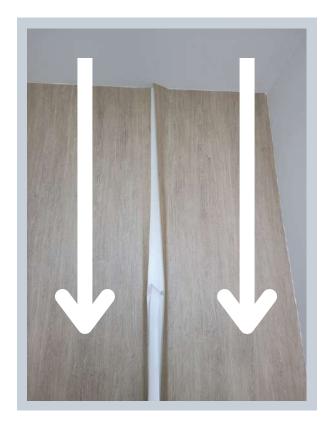
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#### Step 5

Start removing the backing paper downward, do not remove the 2 vertical side pieces. Slowly and in a vertical motion apply the film to the wall working the air out and ensure you are staying straight.





Go back to the top of the wall and carefully apply the film up to the ceiling, ensure the film with the exposed edge does not touch the ceiling as it may pull off paint or textured surface.

#### Step 7

Apply the rest of the sheets of film ensuring that you overlap the edge pieces by at least 1 in.

#### Step 8

Tape the overlapped edge pieces down, allowing the film to rest at this point is a good idea, if possible give it a day or more.



#### Step 9

Using a laser level put a straight vertical line down the center of your overlap seam. Then using a straight edge to help guide you cut through both pieces of film, ensuring that you do not cut the drywall. Remove backing paper and apply film to the wall. The pieces of film should butt up perfectly to each other. Go over the seams firmly with a seam roller. The film is pressure sensitive and this process will help bind it together.

#### Walls & Tile - Making Rough Surfaces Flat

*Note:* Walls must be flat and texture free to apply the film smoothly to the surface. Assessing Difficulty. The film can also be applied to tiled surfaces like those in a tile shower.

#### **Tip 1.**

Like walls, tile should be clean and smooth. Soap scum can be difficult to see and can prevent you from getting the material to stick adequately. Cleaning the tile with a specialty cleaner designed for removing calcium, lime, and rust. Difficult to remove dirt and oil residue can also be cleaned using a product called TSP (trisodium phosphate - in powder form that you add to water) available in hardware stores.

#### Tip 2.

You can apply the film directly to a tile surface if the customer wants to see the underlying grout pattern showing through the vinyl. It is more likely that they will not want to see these lines. In that case, you will need to get an all-purpose, waterproof, joint compound to fill in the grout lines. Simply cover over the grout lines with the compound and smooth it with a putty knife or trowel. After it dries, sand the surface smooth (be careful not to scratch the underlying tile). After the surface is clean, dry, and smooth, apply the film as you would to any flat surface.

#### Tip 3.

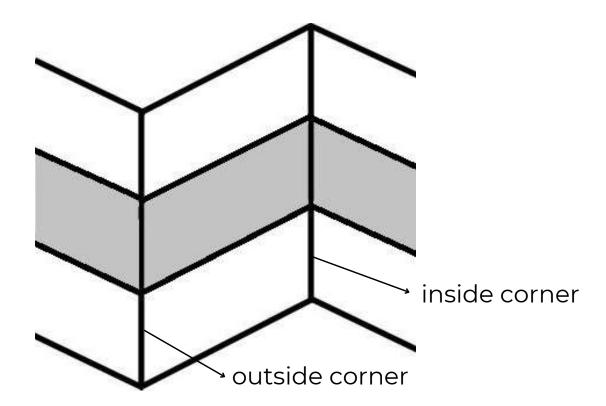
You can also find a thin, sturdy material (Masonite, plexi-glass for example) that is available in large sheets or panels. Wrap those panels with the film. And then affix these wrapped panels over the tile with adhesive or unobtrusive screws. This makes for a simple effective install that has the added advantage of leaving the underlying tile in its original state. This way, the customer can easily switch out the wrapped panels with new styles of the film frequently. They can also easily revert back to the original tile that has been left unscratched. This is a good option for people leasing their homes.

#### Tip 4.

Whenever you have seams that are exposed to water, even though the vinyl is water resistant, as is the case with a shower or a kitchen backsplash, covering the seam with a clear silicone caulk will help preserve the life of the material at the seam. The top and bottom edges of a shower, for example, are at a height suitable for hiding any caulk lines.

# INTERNAL AND EXTERNAL CORNERS

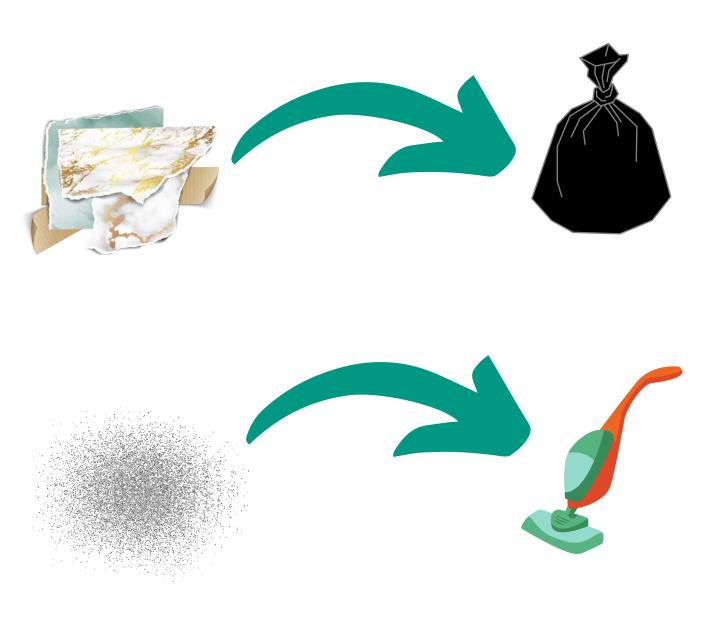
- 1. Apply BODAQ primer to the internal corners with at least 5cm coverage on either side.
- 2. If applying two BODAQ panels at the internal corner, overlap by at least 0.5cm.
- 3. If the temperature of the room is under 20 degrees Celsius, apply the film while heating evenly. Do not overheat as it may cause the film to wrinkle.





# **CLEAN UP**

Do not ruin the positive impression created by your beautiful install by leaving a mess for your client to clean. Cut scraps of vinyl and segments of backing paper must be disposed of for your client. Always carry trash bags or trash boxes to your worksite so you can keep the area neat and clean. Also, you should bring a mini-vac to your worksite to vacuum up any residue left behind from sanding or filling compound application.



# **PICTURES**

Always take photographs of wrapped surfaces before, during and after your installation. This practice serves two purposes. First, it provides you with an abundance of marketing materials for both print and web-based marketing to promote your company. Second, it documents what you have completed in the event that the client refuses to pay for services you have rendered. Unfortunately, this practice is not as uncommon as you may think. Should litigation arise from an installation, these photographs could prove quite valuable.



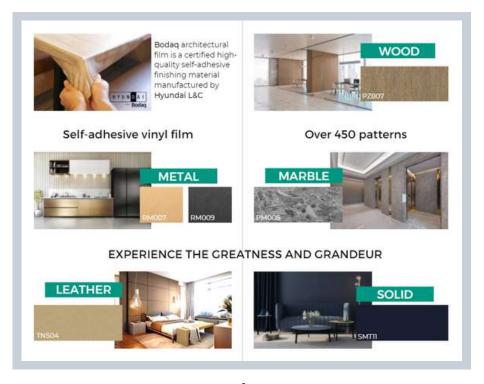


## CLIENT MANAGEMENT\REFERRAL BUSINESS

Finally, happy clients can be a source of significant referral business. Always leave some of your business cards with satisfied customers so they can give them to their friends who express an interest in having their own surface wrapped. Also, provide your customers with a link for giving you a positive review. If you are performing an install in a public location like an office building or hotel, have brochures or business cards handy for interested passers-by to pick up and perhaps contact you for information about your installation services.



#### **Business card**



**Brochure** 

www.bodaq.com

### APPENDIX A - REQUIRED TOOLS

- 1. Razor blade knife with replacement blades
  - a. 9 mm knife Knife and squeegee kit
  - b. 18 mm knife
- 2. Solid 48" straight edge ruler and 12" ruler
- 3. Measuring tape
- 4. Bodyguard knife Used for cutting backing paper Safety Knife or Safety Knife
- 5. Heat gun with adjustable heat settings
- 6. Sandpaper and sanding block Multiple grit between 120grit-320grit
- 7.99% Isopropyl Alcohol and water solution (spray bottle) and lint-free towels
- 8. Screwdriver
- 9. Squeegee Kit including squeegees and 9mm knife
- 10. Bodaq water-based primer and 3M Primer 94
- 11. Painter's tape and drop cloth

## **CLICK ON THE LINKS**



# APPENDIX B - SPECIFIC INSTALLATION CHALLENGES

There are a few tips for performing specific types of installations that you will run into.

#### **SURFACE REPAIRS - PRE-INSTALLATION**

#### Scratches, gauges, cracks.

- a) Apply wood filler into the cracks and gauges and smooth the material with a putty knife.
- b) A smooth corner is to be created by molding the wet wood filler into a sharp corner.
- c) The patch material will dry in about half an hour.
- d) Sand the patch until smooth. Re-clean to remove any residual debris.
- e) Now we are ready to proceed.



#### Peeled lamination or wood strips

- a) Scrape any dried glue from the area of laminate tape that touches the underlying surface.
- b) Clean, dry, and re-glue the laminate tape to the underlying surface. Slower glues (normal wood glue) require the strip to be held in place for 30 minutes minimum to ensure tight adhesion. A fast-drying glue (gorilla crazy glue) is preferred.
- c) Light taping or a clamp can serve to hold the strip in place during the drying process. This will free you up to work concurrently on another area while it dries.

#### Cabinet doors - Mounting/Unmounting, Hardware Removal

- a) In most cases, only one or two screws hold a cabinet door to a cabinet panel.
- b) Remove the hardware that connects the hinge to the door panel.
- c) When you remove the hardware and the screws, you will likely create some debris at the site of the screw and hardware holes. Wipe, or gently scrape away loose debris from the area. The debris can ruin an installation.



#### **Bookshelves**

#### **Tip 1.**

The many sharp edges of a bookshelf do not lend themselves well to using a heat and stretch application method for any purpose other than achieving tight corners at easily reachable corners. You should think of the interior of a bookshelf as a series of flat panels installations. Each panel of the interior shelves should be cut separately with about a 1/2inch overage at all corners. Apply the vinyl as you would to all flat surfaces. The final step of each panel should include a cut along the length of each corner to create a 3mm overlap for the next piece to cover.

*Note*: Pay attention to the directional nature of the pattern on your film. Be sure to place the grain directionally consistent throughout the entire bookshelf! This is common sense, but it is easy to have a lapse in concentration and to get one piece wrong - and it will be noticed.

#### Tip 2.

For the inside corner cuts, use the edge of your squeegee to guide your blade along the corner to prevent your blade from wandering off course.

#### Tip 3.

Beware of paper surfaces lining the inside shelves of cheap bookshelves. If you must remove a piece of the film after application, or if you are not wrapping the interior sides but a piece of the film's adhesive touches the paper lining, you will see a very visible tearing in the paper lining.

#### **Tip 4.**

Remember to discuss covering the peg board interior sides of bookshelves with your customer before installation. It is usually best to avoid having to cover these sections since so many holes will have to be cut around in your final stage of the installation.

*Note:* your customer may want to cover most unused peg holes, in which case you should fill all unnecessary holes with wood filler to ensure a smooth, unnoticeable result.

#### **Wood Furniture**

These pieces can always be covered using the techniques listed above. A few areas of difficulty should be addressed, however.

#### **Tip 1.**

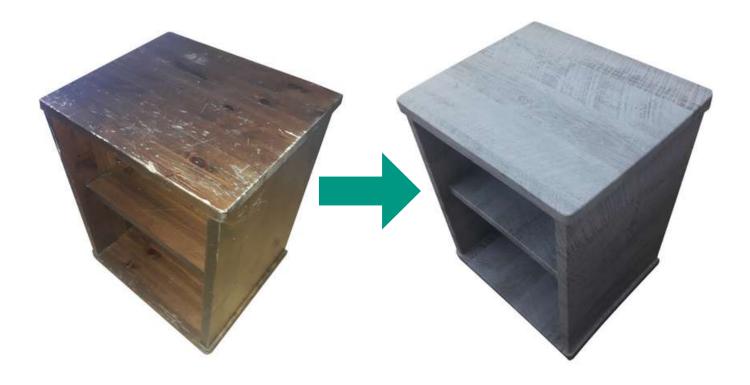
Be careful to identify and protect any delicate, antique, or fragile portions of the wood or hardware on the item. On occasion you may have to cut your material around non-removable hardware. Exercise caution with your blade so you don't scratch any surface.

#### Tip 2.

Pay attention to the directional nature of the grain. You will, almost certainly, be cutting and applying the film with the same directional orientation.

#### **Tip 3.**

If you are using a chemical to clean or repair a surface on a piece of wood furniture, try to find an inconspicuous segment to test the chemical application to make sure it doesn't injure or discolor any surface of the wood.



# APPENDIX C - ESTIMATING AND PRE-INSTALLATION INSPECTION

#### **Doors and Flat Surfaces**

- **a) Damage to flat surfaces like scratches on doors or walls** wood filler or putty will fix most of these issues quickly and effectively.
- **b) Complex hardware** a great variety of styles and technologies of door mechanisms exist today. Removal of powered or high-security locks (both residential and commercial) may require the use of a building maintenance professional or a locksmith.

*Note:* locksmith services can be quite expensive. If the door does not use simple hardware, it is advised that you have the client take care of door hardware removal in advance of the installation.

c) Peeling lamination - older or worn-out laminate cabinets sometimes exhibit the laminated strips at the corner and edges of the surface peeling away from the surface of the piece to be covered. The old glue that secured the laminate to the furniture weakens and peels back. If left unrepaired, over time the peeled back laminate will apply pressure to the new film and result in an untidy application that will ruin the results of your hard work. Glue down the peeling laminate so that you will avoid problems that will require further.

*Note:* Wood glue can work for this repair, but "gorilla" glue is much more effective and quicker to set.

- **d) Previous repairs** if a surface has previously been broken and repaired, be advised that you don't really know if the previous repairer did an adequate job. Try to make the area as smooth as possible so your installation will hide any visible flaws. Be careful not to disturb this work. Make your client aware of any difficult areas prior to your installation.
- **e) Paper surface**s inexpensive cabinets and bookshelves are often lined with paper that mimics solid wood or laminate materials. If the adhesive layer or your film touches the paper lining, it will most likely peel the paper up leaving an ugly scar that is very difficult, if not impossible, to fix without completely covering the surface with the vinyl film.
- **f) Wide surfaces** (beyond 48" widths) if the area to be covered is wider than 48", you will have a seam to deal with. Seams can often be unnoticeable with the architectural film, but not always.

#### Cabinets and Shelves

- **a) Decorative curves** extra time and attention must be paid to getting a quality wrapping of decorative surfaces. The heat gun will help you greatly.
- **b) Non-removable shelves** additional time may be needed to wrap around fixed shelves in a cabinet.
- **c) Front and back** items that require both sides of a surface to be wrapped (if a client wants to cover the front and back sides of cabinet doors, for example) will need double the labor and material necessary to wrap a single side only.





#### **Trim**

- a) Does it need to be removed? If trim is to be removed, it is important to remember that it must be removed carefully. Trim, such as quarter round or decorative moldings, or borders can be quite fragile. Furthermore, replacing elaborately ornamental broken trim can be problematic. Trim styles and manufacturers change over time, so finding replacement lengths or ornamental trim can be difficult and expensive. If trim is to remain in place and be covered, extra time is needed to make sure you get tight corners and sharp lines where trim and the regular surface meet. Primer will also be necessary to ensure strong adhesion in high-stress corners.
- **b)** Is it fragile? Remember, the trim must be removed carefully to prevent it from breaking. Also, it must be reapplied carefully to ensure you don't break it or damage it further. Also, most trims need to be wrapped separately from the primary surface before reinstalling thus adding extra time, labor, and material cost.
- **c) Does it need repair?** Is it easy or difficult to do? Be sure to include repairs in your labor and material cost estimate. Be wary of attempting repairs you are not qualified for.

#### Walls

- **a) Raw drywall** the vinyl film will adhere nicely to bare drywall with simple preparation. However, removing the film from raw drywall will result in paper tearing and possible scarring of the gypsum substructure.
- **b) Textured surfaces** the film applied to a textured surface will result in the texture showing through the film. Two solutions to avoid this problem include:
  - Covering the texture with drywall mud and a trowel to smooth out the wall and then sanding it flat to make a smooth surface
  - Sanding the existing texture flat

*Note:* The second solution is the preferred one because it eliminates the need to apply the mud, wait for it to dry, and then sand it flat. Sanding is inevitable with either solution, so you might as well avoid the whole application and drying process altogether. Ensure to add these costs into your estimate.

#### **Painted Surfaces**

a) If an adjacent surface to where the film will be applied is painted, it is important to cover the area to make sure the adhesive backing on the vinyl film does not accidentally tear off sections of paint from the pre-existing surface treatment. This will add a little extra time to the job, but it will save you time and aggravation in the long run.

#### **Countertops**

Be careful about accepting offers to wrap certain countertops. Kitchen counters can be quite problematic. Remember the following issues:

**a) Exposed to water** - care must be taken at any install location that requires a seam to be placed in an area exposed to water. For example, a kitchen counter that intersects with a backsplash that is to be covered. Caulk may be required to keep the seam protected from eventual eater damage.

#### b) Right angles and curved corners

- **c) Hot items** alert a customer that hot items (i.e. pans from a stove or oven) should not be placed directly on a wrapped counter. Excessive heat can damage the installed film.
- **d) Knife usage** knives can scratch and damage the film on a countertop. Alert a customer that a cutting board must be used and that no direct cuts should be made on the wrapped surface





#### **Railings**

- **a) Require removal.** Do the rails have hardware that needs to be removed in order to complete the installation?
- **b) Difficult locations.** High elevations can require the use of a ladder or electric hydraulic lift. Be sure to include rental, safety, and extra time consideration in your estimate.
- **c) Intricate patterns.** Remember to include the additional time necessary to install the film on ornate surfaces.

#### **Furniture**

- **a) Intricate patterns.** Remember to include the additional time necessary to install the film on ornate surfaces.
- **b) Antiques or valuable pieces.** Extra time and preparation may be necessary to make sure you do not damage or alter valuable items.
- **c) Delicate finishes.** Paper, gilding, and special paint treatment must be covered with a light sticking masking tape to protect them from possible damage from an installation.
- **d) Heated appliances.** Appliances that generate excessive heat should either be avoided or use the primer to ensure adhesion is a necessity. Don't forget that primer will help to ensure adhesion on wrapped surfaces adjacent to stoves and heaters.





# HAVE QUESTIONS?

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