

# DO-IT-YOURSELF High Gloss Splashback

## **Fabrication & Installation Manual**

Watch video online of how to cut and install gunnersendiy.com.au





#### CAUTION

General safety precautions should be used when handling Splash. Suitable gloves and safety eyewear should be worn at all times. Manual lifting and handling practices should be used with a minimum of 2 people at all times.



#### **Adhesives required**

☐ Neutral Cure Silicone (Recommended: Selleys 3 in 1 Clear 300g.)
☐ <b>Double sided Tape</b> (Recommended: Perma Mounting Tape Everyday Bulk Reel 12mm x 20m.)
Basic tools required
Pencil for marking
☐ Measuring Tape
☐ Circular Saw to make long straight cuts (Recommended Blade: Irwin 184mm 120T 20/16 PVC Circular Saw Blade.)
Straight Edge to guide circular saw
☐ Clamps to hold straight edge and Splash during cutting

☐ **Drill and Jigsaw** (If small holes are required. E.g. Power points)
☐ **Sandpaper** for finishing edges. (80, 220 & 500 grit for final finish)

# HIGH GLOSS Acrylic Panels

## **Fabrication & Installation Manual**

#### **Protective Film**

Both sides of Splash are protected by a film.

Be sure to leave the protective film on the panel throughout the marking, cutting and machining process to ensure the finish is kept in perfect condition.

We strongly recommend avoiding external storage, or extended periods of exposed transport (uncovered flatbed truck). The protective film and adhesive could be damaged, making the removal of film difficult.

#### **Storage**

Splash must be stored in a dry location. For added protection, long term storage should be protected by an additional polyethylene cover. The flatness of the panels could be altered if panels are stored or transported in humid conditions

We recommend that panels are stored horizontally on their original delivery pallets. Pallets should not be stacked on top of panels as this may create the risk of spoiling the flatness of the Splash.

If a vertical storage method is required, panels should be fully supported at an incline of approximately 80° degrees, to avoid cold forming.

#### **Technical Properties**

General Properties	Standard	
·	ASTM D-792	1.00
Specific Gravity		1.20
Water Absorption	ASTM D-570	< 0.2%
Dimension		
Diagonal Difference	-	<4mm
Thickness	-	6mm
Mass	-	7.145kg/m <sup>2</sup>
Mechanical Properties		
Abrasion*	ASTM D-1044	14%
Pencil Hardness Taber, 10 cycles, CS10F 500g	ASTM D-3363	3H
Fire Behaviour	Standard	
Ignitability Indices	ASTM 1530.3	12
Spread of Flame Indices	ASTM 1530.3	6
Heat Evolved Indices	ASTM 1530.3	5
Smoke Developed Indices	ASTM 1530.3	4
BCA - Grouping	AS/NZS 13837	Group 4
Chemical Resistance		
Kerosene	-	No Effect
Mineral Turpentine	-	No Effect
Citric Acid	-	No Effect

### **Fabricating Manual**

#### Machining

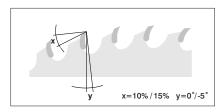
Splash can be machined (cut, drilled, routed and sanded) using conventional wood or metal machinery. Excessive high speed machining may cause overheating and internal stress to the panel, which will require annealing to relieve stress.

We recommend:

- Using only very sharp cutting machinery
- · Removal of all swarf after cutting
- Clamping the panel against a solid surface during machining to avoid vibration. Strong vibration may result in poor edge finish or even broken panel
- Extra care during the blade entry and exit stage, when cutting Splash

#### **Circular Saws**

Circular saws work well with Splash, and can provide a straight cut when using a straight edge guide. For industrial cutting of multiple panels, carbide tipped blades are recommended.



#### Recommended speed for saw diameters

Saw Diameters (mm)	Rotation Speed (rpm)
150	6400
200	4800
250	3800
300	3200
350	2800
400	2400

The teeth are radial (the cutting edges are aligned with the centre) and are backed-off to form an angle of 45° at the tip. The teeth are not set but the saw must have a rake of approx. 0.2 % on each face.

Blades with 2-5 teeth per cm work best and produce best results.

Diamond tipped tools provide a more polished edge finish.

#### **Bandsaws**

Bandsaws are not recommended for straight cutting.

Bandsaws require unnecessary, lengthy sanding and finishing to edges. Only use for cutting curves.

#### **Jigsaws**

Jigsaws can be used for small cuts, such as power point openings. Only use blades suitable for plastic and do not allow the blade to overheat. Jigsaws are not recommended for straight cuts.

#### **Laser Cutting**

Laser cutting produces a very clean edge finish and rarely requires further finishing. However, laser cutting causes high internal stresses and cannot make contact with solvents, adhesives or harsh cleaning products etc. Annealing after laser cutting will minimise the risk of crazing.

It is not recommended for laser cut panels to be used with adhesives or solvents.

#### **Water-Jet Cutting**

Water-jet cutting is recommended as it produces a great finish and does not cause any heat or stress related issues. Therefore, annealing is not required.

#### Router

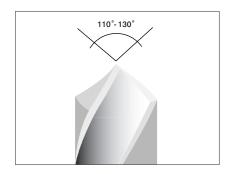
A router is recommended for complex shapes and produces a clean, smooth finish. We recommend using a cutter with 2 or more cutting edges. Carbide tipped cutters produce best results.

Use a rotation speed between 10,000 and 30,000 rpm, depending on cutting edge diameter. Cooling by compressed air may be helpful.

As well as making straight cuts (with a guide), routers can be used for engraving and finishing edges.

#### **Drilling**

Both fixed and portable drills are suitable for Splash at medium to slow drill speeds. Take care not to overheat the panel during drilling.



Slightly blunt drill bits work best with an entry angle of approximately 110-130 degrees, as per diagram above.

While drilling, withdraw the drill bit often enough to help remove the build up of swarf.

#### Sanding

Some cutting methods require sanding to achieve a smooth and polished edge finish. Wet carborundum paper works best on a belt sander at 10m/s or by hand.

Water spray is recommended during sanding to reduce any overheating.

Using different grades of sandpaper is recommended, from coarse to fine. E.g. 60, 220 and 500 grit for final finish.

#### **Engraving**

Engraving can be done either manually or by computer controlled equipment. Different speeds will achieve difference results, be sure to test on a small piece first.

#### **Polishing Edges**

Depending on the application and preference, you may want to polish edges after sanding for a perfect finish. This can be done by hand or machine.

#### **Hand Polishing**

Use a soft non-woven suede or felt cloth with a non abrasive liquid polish. We recommend Vuplex polish, available form your Splash distributor. Do not use silicone based polishes.



#### **Machine Polishing**

A belt polishing machine can be used with a felt belt, however be sure to use a non silicone based polishing paste.

Disc polishers can be used on the face of the panel with felt or sheepskin buffs and a non-abrasive liquid polish.

#### **Bending**

Splash can be bent up to a 90 degree right angle bend. We recommend not to heat the entire panel as it may effect

the ultra flat and clear surface. Heat the area surrounding the bend location only. We recommend heating a strip area of up to 30mm at the location of the bend. Optimum bending temperature of Splash is between 145-170 degrees Celsius.

#### **Cold Bending**

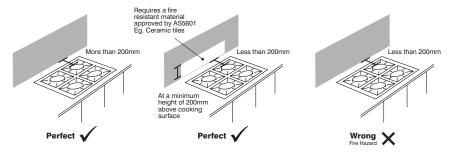
Splash can be cold bent to a radius of 2 metres.

#### Guide for installation behind cooktops

#### **Gas Cooktops**

In accordance with Australian Standards (Gas Installations AS 5601-2004), Splash must be installed with a minimum of 200mm distance from gas cooktop burners.

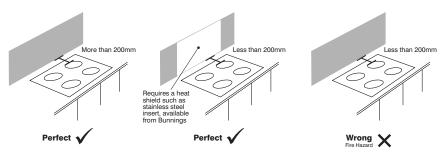
If the distance between the splashback wall and burner is less than 200mm, please refer to Gas Installations AS 5601-2004, for material requirements.



#### **Electric & Induction Cooktops**

We recommend Splash be installed with a minimum of 200mm distance from the nearest electric or induction cooktop burner.

If the distance between the splashback wall and burner is less than 200mm, please use a heat shield such as a stainless steel insert available from Bunnings.



Note: Always follow appliance manufacturers installation instructions together with the guide above.

Disclaimer: The receiver of Splash is fully responsible to confirm current laws, rules and regulations prior to installation. No liability may be derived from these images, information or advice.

# IMPORTANT INFORMATION

- Ensure to inspect the panel for damage or defects prior to installation
- Do not store or transport Splash in direct sunlight
- Splash must be stored inside.
   Be sure to store flat and well supported to avoid any cold forming of panel
- Splash is designed for vertical applications only
- Be sure to allow for expansion gaps as detailed in this guide. Splash will expand and contract at the rate of 0.5-0.7mm per metre for every 10 degrees Celsius





#### **Polishing & Refinishing**

- Minor scratches and scuffing can be easily removed from Splash by hand, using selected liquid polishes and soft microfibre cloths. More severe damage can be restored using extra cut polish and or very fine grades of wet and dry sand paper by hand or by machine
- Always use clean cloths for applying polish and final buffing
- Apply polish sparingly to avoid over buffing. For manual buffing use a light circular motion
- Apply liquid polish to the target area using cloth one. Remove the liquid polish whilst still damp using a fresh clean cloth
- Use soft lambswool, flannel or foam buffs for machine polishing
- Polishing machine speed should be below 3000rpm to avoid overheating the material

#### **Cleaning & Maintenance**

Best results are achieved using a soft microfibre cloth or chamois with non-abrasive detergent in warm water.

Grease or oil can be removed with kerosene or suitable plastic cleaners.

Do not rub the Splash surface when it is

#### Do not use:

- Brushes, scrapers or paper towels
- Window cleaners
- Thinners
- Solvents
- Halogenated solvents
- Other strong chemicals that include; acidic solutions, acetone, alcohol, ammonia, amylacetate, benzene, butyl acetate, butyl alcohol, caustic Soda, cellusolve, chloroform, chlorinated solvents, cresols / phenols, dichloromethane, ethylacetate, glacial Acetate acid, methyl alcohol, methyl ethyl keystone, turpentine, tolyene and Xvlene

#### Warranty

Full warranty details at www.gunnersendiy.com.au

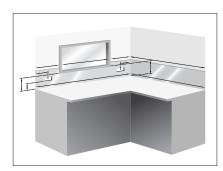
#### **Area Preparation**

- Ensure walls are clean, smooth and dry. All wall fixings (nails or screws) must be flush or recessed
- Existing walls in sound condition may be used and need to be cleaned with sugar soap or any other detergentbased degreaser
- For best results, paint any areas where Splash will be joined with a similar colour to the Splash panel. This will ensure any colour visible between panels through the neutral cure silicone is consistent

#### Measuring

- Measure each wall area including any windows or cut-outs, and determine suitable panel sizes
- Best to avoid large cut-outs for windows etc. and use panel joins for these areas

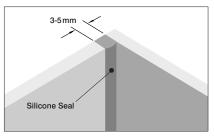
Allow for joints as Splash expands and contracts at 0.5-0.7mm per metre, with every 10 degrees Celsius change in environment. Please see diagrams of different joint types, with gap indication depending on panel size.

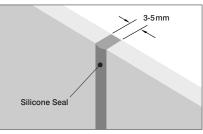


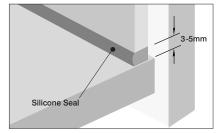
• Ensure to check the squareness of the wall, if the area is not square we recommend trial fitting of a full size template before cutting the Splash panel

#### **Marking to Cut**

- Splash is supplied with a protective film on the front and back of each panel. It is best to mark and fabricate the panel with both sides of protective film on to ensure finish is flawless when installed
- Cut lines can be marked on the film using a soft pencil or felt tip pen. Do not use metal scribes
- Do not mark out in direct sunlight or very cold conditions as thermal expansion and contraction can affect panel size prior to installation
- Do not remove film until panel is installed







### **Installation Manual**

#### Cutting

Be sure to always wear safety eye and ear protection when cutting or drilling Splash

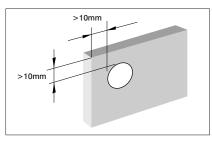


Support Splash Panel on plywood sheet or solid table top. 1200mm maximum length between supports.

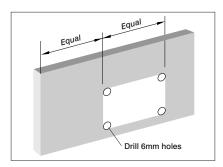
- When cutting with a circular saw, make sure the panel is FACING DOWN to reduce the risk of chipping
- Be sure to secure panel to support with clamps to avoid vibration and chance of chipping/cracking
- Use a fine cut blade as recommended in the fabrication information
- The use of a straight guide will ensure a smooth, straight cut
- Jigsaws can be used for small cuts, such as power point openings. Only use blades suitable for plastic and do not allow the blade to overheat. Jigsaws are not recommended for straight cuts

#### **Drilling for Openings**

• Be sure all drilled holes are no closer than 10mm to the edge of the panel



 All openings should be no closer to an edge than the size of the largest opening



- It is best to use step drills for medium to large holes
- Make sure to drill holes in the corner of any openings to avoid square inside corners that may weaken the panel
- Always drill holes starting from the face of the panel to reduce the risk of chipping. Slow to medium drill speed will achieve best results
- Slightly blunt drill bits suit the characteristics of Splash, and produce best results

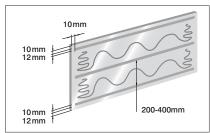
#### **Edge Finishing**

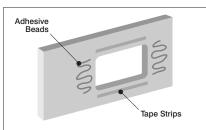
- After cutting with suitable sharp blades, the edge finish should be smooth and neat. If you require a polished edge please see the sanding and polishing edges information in the fabrication information on page 5
- Alternatively, generic extrusions made from acrylic or aluminium can be used to finish the joins. Please note, PVC extrusions cannot be used

#### **Panel Installation**

- Dry fit all panels to ensure panel sizes are correct before applying tape or silicone
- Remove the protective film from the back of the Splash. Leave the film on the face of the panel until after installation is complete
- Scuff the back of the panel with coarse sand paper (240 grit) to ensure a strong bond is achieved with the silicone

- Clean and dry both the back of the panel and wall surface, removing any dust or loose particles
- Apply 12mm x 1.6mm thick double sided tape (with synthetic rubber adhesive) horizontally along the back of the panel at approximately 250-300mm vertical spacings
- Apply a 6mm bead of neutral cure silicone in a wavy pattern between tape strips, as per diagram below





- Increase the concentration of silicone near edges as shown in diagrams above
- Remove the tape liner and install the panel resting on 3-5mm spacers
- Firmly push panel on wall ensuring the tape and silicone make good contact and bond well
- Allow silicone to dry for 24 hours before sealing joints and perimeter with neutral cure silicone (if required)
- The protective film on the face side can now be removed

Enjoy the Splash flawless finish!

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