

PAPEROCK

CARE & INSTALLATION GUIDE

Paperock is a versatile product with many great properties. It is important to follow a few guidelines with regard to care and maintenance to ensure the product's maximum longevity. Paperock is impregnated with phenolic resin making it impervious to water. It is also stain and heat resistant up to 170 degrees centigrade.

Paperock is a handmade product with inherent imperfections giving the product its natural look and feel. See examples below.

CARE & MAINTENANCE

DON'T:

- Although heat resistant up to 170 degrees it is not advisable to put hot implements directly onto surface.
- Don't use cutting implements directly on surface.
- Don't use bleach based products to clean surfaces.

DO:

- Wipe down Paperock with water soluble, non-abrasive cleaning products.
- Use a cutting board on surface, eliminating contact with knives etc.

TIPS & TRICKS:

- After sanding, we recommend applying Osmo topoil to Paperock according to product instructions. See products list below.
- In the event of scratching it is recommended that the whole surface be lightly sanded, not just the scratched area. This is to avoid inconsistencies in surface texture.
- A non woven pad (such as Norton Bear-Tex hand pads) should be used to lightly buff out scratches, and then apply Osmo topoil (following product instructions).

INSTALLING

Please have a look at our install guide below or online before fabricating and be sure to read the safety data sheet prior to fabricating. www.paperock.com.au/faqs-install.php

INHERENT IMPERFECTIONS:

- Water marks – can be sanded out
- Small indentations on the surface. If not desired, can be filled with a mix of Paperock sawdust and epoxy.
- Mottling – gives natural stone look.

SANDING:

- Due to exposure from freight and handling scratching or scuffing may occur. Please see below if sanding is required.
- It is important that the surface is not over sanded. Paperock is a hand made product with many layers of paper.
- The deeper that it is sanded, the greater chance of encountering an onion peel effect through the layers.
- If sanding is required it is advisable to consistently sand the whole surface with a random orbital sander. Paperock may possess some inherent imperfections giving slight variations from sheet to sheet.
- It is common that the material has inherent water marks on the surface and these can either be lightly sanded out or left as a feature of the material. Over time the material may gain a natural Patina.
- If needing to lightly sand out blemishes or scratches that may have occurred during fabrication it is advised to use a non-woven scotch brite pad. These can be purchased at painting stores and come in different grades according to colour.
- If further sanding is required it is advisable to use 240 grit and above initially.
- Edges can be cleaned up with 40 grit, sanding up to 240 grit for a polished edge.

CUTTING:

- It is recommended that "good quality" tungsten carbide blades be used for any cutting of the material. Paperock can be cut using a panel saw or CNC. Be aware that Paperock is a dense product and can be likened to cutting ironbark timber.

JOINING:

- Due to the nature of production of Paperock each sheet has a thickness tolerance in some cases up to +/- 1mm.
- Ensure thickness is checked prior to cutting to get best match for thicknesses between sheets.
- When joining it is best to make the top edge flush, using biscuit or toggle joints. That way avoiding the need for excessive sanding on the top layer. You can then pack out and sand underneath to make level if required.
- When joining please use biscuit joints or toggles or some type of bracing to avoid the join coming apart if the substrate is to move.
- Paperock can be joined in a number of ways depending on design of cabinetry.

GLUING:

- With all joins we recommend using a two part clear epoxy (araldite) for gluing.
- Line edge of join with masking tape to avoid having to sand surface after.
- When bringing the joints together, allow glue to start to go off, once at a gel like consistency use a sharp implement eg. chisel to clean off excess to avoid need for sanding.
- If applying to a substrate, an adhesive such as liquid nails is adequate.
- PVA glue is not recommended.
- Some form of bracing is required when gluing joints eg. toggles, biscuit joints to allow for movement in the substrate. At the very least a metal bracket screwed underneath to secure the join.

FINISHING:

- To finish Paperock we recommend applying Osmo Top Oil oil to the surface to assist with durability and colour enhancement. See recommended products list for this.
- Apply using a micro fibre cloth. Do not use a brush as it will leave streaks.
- Apply first coat thinly, thoroughly and evenly. It is important NOT to over apply, ensuring all surplus is rubbed off. Over application may cause finish to scratch easily. No more than two coats is required. Leave to dry at least 8-10 hours ensuring good ventilation.

ROUTING:

- Ensure that the edge finish is not extremely rough (if so, perform a preliminary sanding of the edge with 80 to 180 grit sandpaper depending on severity of roughness).
- Using a profile bit with a guide bearing, route the desired edge detail into the panel's edge (if desired edge detail requires the removal of a considerable amount of material, utilise 'step-cuts' to maintain a better edge and prevent burning). Burn marks can be easily sanded out if required.

DRILLING:

- All holes should be pre drilled ensuring pilot hole are the correct size to avoid screws snapping in material.
- Test on an off cut prior.
- Strongest grade screws are recommended (steel).

CNC ROUTING:

- It is advisable to use solid carbide end mills with Paperock.
- Start with 'roughing cuts' in which you cut @ 10,000 RPM's and travel @ 200 inches per minute.
- Solid carbide 'compression' cutters seem to work best for this during this 'roughing cut', because it tends to reduce the amount of 'chip-out'.
- We usually perform 'step' cuts that are no deeper than the diameter of the tool that we are using. For example, if we are cutting a 25mm thick Paperock panel with a ½" end mill, we will perform 'step' cuts of no more than ½" depth at a time.
- We then perform a "finish cut" @ 15,500 RPM's and @ 185 inches per minute.
- This cut seems to come out the best when we use a 3 or 4 flute spiral cutter.
- The final pass is a full thickness cut. This is a good starting point, but all machines tend to be slightly different.

TESTING OFF CUTS:

- In all cases of fabricating Paperock we recommend testing on off cuts prior to joinery. This will allow the fabricator to have a good knowledge of how to use the product.

RECOMMENDED FINISHING PRODUCTS:

We recommend non-toxic, food safe products to finish Paperock.

- **Osmo Top Oil**

www.osmona.com/interior/Top_oil.shtml

For distributors – Paperock can supply this with your order if requested.

- **Non-woven hand pads**

These can be purchased at painting stores in different grades, produced by Norton Bear-Tex or Scotchbrite 3M.

CLEANING:

- Test cleaning products on small area of surface before applying overall.
- Benches should be wiped down with water soluble, non abrasive tools and cleaning products.
- Bleach based products are NOT to be used on Paperock surfaces, as it will damage finish.

PAPEROCK

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

Product Name:	Paperock
Other Names:	Phenolic FRP Panel
Manufacturers Product Code:	Not Applicable
UN Number:	Not Applicable
Dangerous Goods Class:	Not Applicable
Subsidiary Risk:	Not Applicable
Packaging Group:	Not Applicable
Hazchem Code:	Not Applicable
Poisons Schedule:	Not Scheduled

PHYSICAL DESCRIPTION / PROPERTIES

Appearance:	Flat panel of various sizes & thicknesses
Boiling Point:	Not Applicable
Vapour Pressure:	Not Applicable
Specific Gravity:	Not Applicable
Flashpoint:	Not Applicable
Flammability Limits:	Not Applicable
Solubility in water:	Not Applicable

OTHER PROPERTIES

No data

INGREDIENTS

Chemical / Generic Name	CAS Number	Proportion
Phenol-Formaldehyde Resin	903-35-4	30-60%
Cellulose Fibre	Not available	30-60%
Free Phenol	108-95-2	<0.12%
Free Formaldehyde	50-00-0	<0.1%

USE

Fibre Reinforced Phenolic Resin Board is suitable for use as benchtops, furniture, lining boards, food preparation surfaces and in electrical insulating areas such as meter box backs, bus bar supports & arc shields.

HEALTH HAZARD INFORMATION

ACUTE

Swallowed:	Some tissue irritation is possible.
Eye:	May cause eye irritation.
Skin:	May irritate skin.
Inhaled:	May cause irritation

CHRONIC

Prolonged or repeated skin contact may result in irritant contact dermatitis and/or allergic contact dermatitis. Possible risk of respiratory sensitisation (asthma). Formaldehyde is listed as a suspected human carcinogen, however the small quantities found in and released by Paperock are not considered to constitute a health risk.

FIRST AID

Swallowed:	Drink a glass of water.
Eye:	Rinse eye with water for at least 15 minutes. Seek medical advice if necessary.
Skin:	Remove contaminated clothing wash skin with soap and water.
Inhaled:	Remove patient to fresh air. Call a doctor if necessary.
First Aid Facilities:	No data.

ADVICE TO DOCTOR

No data

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MATERIAL SAFETY DATA SHEET

PRECAUTIONS FOR USE

EXPOSURE STANDARDS

Formaldehyde: 1 ppm TWA (Worksafe Australia)

ENGINEERING CONTROLS

Adequate general ventilation is recommended & dust extraction equipment is recommended.

FLAMMABILITY

Paperock is not flammable.

PERSONAL PROTECTION

Respirator: An approved respirator suitable for use against particulates (if cutting) or fume (if welding) can be used to reduce exposure. An additional organic vapour cartridge (single-use, Type AX) may be used in the event of high formaldehyde levels. A respirator, if used, should comply with AS 1716 and should be used in accordance with AS 1715.

Glove Type: The use of cotton gloves will reduce skin contact.

Eye Protection: Use of safety glasses selected in accordance with AS 1336 and complying with AS 1337 is recommended to protect against flying particles.

Clothing: Use of long trousers and shirts with long sleeves are recommended to reduce skin contact.

FLAMMABILITY

Paperock is not flammable.

SAFE HANDLING INFORMATION

STORAGE & TRANSPORT

Storage areas should have adequate general ventilation, particularly in hot climates, to prevent high levels of formaldehyde gas.

SPILLS AND DISPOSAL

Suitable for disposal with regular trade waste.

FIRE / EXPLOSION HAZARD

Possible thermal decomposition products include carbon monoxide, carbon dioxide, ammonia and oxides of nitrogen.

OTHER INFORMATION

Hearing protection should be worn during the cutting of panels.