

GENERAL CARE, SAFETY & HANDLING OF LYSAGHT® CLADDING PRODUCTS

The following Section should be considered a guide only. For comprehensive information, building professionals should consult the appropriate legislation, regulations, codes of practice and technical literature such as HB39 and LYSAGHT® product advisory bulletins.

SAFETY

It is commonsense to work safely, protecting yourself and workmates from accidents on the site. Safety includes the practices you use; as well as personal protection of eyes and skin from sunburn, and hearing from noise. Some sunscreens contain titanium oxides. These have been shown to break down some paint compounds and these should be avoided.

Occupational health and safety laws enforce safe working conditions in most locations. Laws in every state require you to have fall protection which includes safety mesh, personal harnesses and perimeter guardrails. We recommend that you are fully aware of all local codes of safe practice and you adhere strictly to all laws that apply to your site.

CARE AND STORAGE BEFORE INSTALLATION

Rain or condensation is easily drawn between the surfaces of stacked sheets by capillary action, or they can be driven in by wind. This trapped moisture cannot evaporate easily, so it can cause deterioration of the coating which may lead to reduced life-expectancy or poor appearance.

If materials are not required for immediate use, stack them neatly and clear of the ground and minimise the duration of exposure if left for extended periods. If left in the open, protect them with waterproof covers.

If stacked or bundled product becomes wet, separate it without delay, wipe it with a clean cloth and stack it to dry thoroughly.

HANDLING CLADDING ON SITE

On large building projects you can reduce handling time by lifting bundles with a crane direct from the delivery truck onto the roof frame. Use a spreader bar for long sheets. For small to medium size projects, without mechanical handling facilities, you can unload sheets by hand and pass them up to the roof one at a time.

Handling Safety - our product may be sharp and heavy.

It is recommended that heavy-duty cut-resistant gloves and appropriate manual handling techniques or a lifting plan be used when handling material.

Handle materials carefully to avoid damage: don't drag materials over rough surfaces or each other; carry tools, don't drag them; protect from swarf.

WALKING ON ROOFS

It is important that you walk on roofing carefully, to avoid damage to either the roofing or yourself.

If there will be heavy foot traffic or where an area is to be treated as non-trafficable on a roof, provide a temporary walkway or working platform with consideration of hand rails to minimise damage.

Always take particular care when walking on wet or newly laid sheets — particularly on steeply pitched roofs.

Generally, keep your weight evenly distributed over the soles of both feet to avoid concentrating your weight on either heels or toes. Always wear smooth soft-soled shoes; avoid ribbed soles that pick up and hold small stones, swarf and other objects.

Great care should be taken when moving near roof overhang (and overlapping ends of sheets such as expansion joints). The overhang should be treated as a non-trafficable area (Refer to Section 2.3 of the

LYSAGHT® Roofing & Walling Manual). When walking near an overhang, walk over or as close as practical to the roofing supports (usually over fastener locations). It is not recommended to walk on the overhang due to the potential for large deflections, which can result in a loss of balance and increased potential fall risk. This is of particular importance with overhangs at building edges.

When you walk parallel to the ribs between supports:

- for ribbed roofing walk on at least two ribs or corrugations (CUSTOM ORB®, CUSTOM BLUE ORB®, CUSTOM ORB ACCENT® 21, CUSTOM ORB ACCENT® 35 and SPANDEK®);
- for pan-type roofing walk in the pans (LONGLINE 305®, KLIP-LOK® 406, KLIP-LOK 700 HI-STRENGTH®, KLIP-LOK CLASSIC® 700, SPANRIB®, TRIMDEK®, INTEGRITY® 820).

Be careful when moving between supports. Do not walk in the pan immediately adjacent to flashings or translucent sheeting. Walk at least one pan away.

When you walk across the ribs between supports, walk over or close to the roofing supports. (Usually over fastener locations).

MARKING OUT, CUTTING AND DRILLING

MARKING OUT

A pencil of any colour may be used except black or so-called lead pencils. Don't use black pencils to mark roofing or walling because the graphite content can create an electric cell when wet and thus cause deterioration of the finish. You can also use a string line with chalk dust, or a fine, felt-tipped marker.

CUTTING

Where possible, you should minimise site-work by using sheets cut to length in the factory.

For cutting thin metal on site, we recommend that you use a power saw with a metal-cutting blade because it produces fewer damaging hot metal particles and leaves less resultant burr than does a carborundum disc.

Alternative cutting tools (electric shears and nibblers) are also suitable however extra care with the straightness of the cut may be required.

Cut materials over the ground and not over other materials where hot particles can fall and cause damage to finishes—especially COLORBOND® pre-painted finishes. It is best to have the exterior colour finish of a COLORBOND® pre-painted sheet facing down, however you must then protect the paint finish from scratching by your work supports.

If you have to cut materials near sheets already installed, mask them or direct the stream of hot particles away. Reciprocating nibblers are also widely used in the roofing trade, and they produce an excellent cut. The resulting small, sharp scraps can rust and damage finishes; and they can cause personal injury. Take special care to collect these scraps.

MAKING HOLES

Holes are often made by drilling or cutting by hole saw or jig saw. Mask the area around the hole to protect paint from damage by swarf.

CLEAN UP

Swarf (metal scraps and/or abrasive particles resulting from cutting and drilling) left on the surfaces of materials will cause rust stains which can lead to reduced life of the material.

- Sweep or hose all metallic swarf and other debris from roof areas and gutters at the end of each day and at the completion of the installation. Failure to do so can lead to blockages of water flow or surface staining (such as when the metal particles rust).
- If swarf has become stuck on a finish, it can be removed. Take great care not to remove the paint or the metal coatings.
- For critical applications inspect the job two weeks after completion, when rain or condensation will have caused any remaining swarf to rust, and thus highlight affected areas.

WARN OTHER CONTRACTORS

Many stains arising from swarf do so, not from the work of roofing-installers, but from other contractors working on the job. Similarly, problems can arise from contact with incompatible materials, like copper piping or chemically treated timber. Acid

cleaning of bricks can also be a problem. Remember to warn them to walk on pans, not on the ribs. Architects and builders need to be aware of all this, and warn contractors accordingly.

STRIPPABLE COATINGS

To provide temporary protection during production, handling and transport, some COLORBOND® products are coated with a plastic. This coating peels off easily when new, but it has a relatively short life, especially in sunlight. If you don't remove this coating at the time of installation, you may find it very hard to remove later on.

Please dispose of the plastic in an environmentally responsible manner.

RECOMMENDED SEALANTS

Neutral-cure silicone sealants have been successfully used with the range of steel finishes on our roofing and walling; and on flashings, cappings, and gutters made from the same materials as the cladding.

Neutral-cure silicone sealants:

- have good adhesion to the clean surface of all our roofing and walling;
- are water resistant and non-corrosive;
- are resistant to extremes of heat and cold while retaining good flexibility;
- excellent gap fillers;
- provide high resistance to ultra-violet rays (sunlight); and
- have a long service life.
- they are NOT adhesives.

It is important that only neutral-cure silicone be used with sheet steel. Other silicone sealants, often have a vinegar or ammonia smell, and give off aggressive by-products during curing which are detrimental to sheet steel.

If in doubt, look for a message on the sealant package like: Suitable for use with galvanised and ZINCALUME® steel products.

CLEANING SURFACES

For effective bonding, all surfaces must be clean, dry and free from contaminants such as old sealant or oil.

Mineral turpentine is suitable for cleaning the surfaces but care must be taken to completely remove all residual solvent with a clean dry cloth. White spirits is an alternative.

Sealant must be applied on the same day as the surface is cleaned.

JOINT STRENGTH

Joints sealed with sealant should be mechanically fixed for strength. Spacing

of the fixing will depend upon the type of joint to be sealed. Fasteners in joints of simple seams (flat sheet steel joints) should generally be no further apart than 50mm. Fasteners in joints with profiled roofing (e.g. side-lap joints) can be spaced further apart. The spacing of the fasteners shall be based on good and accepted industry practices to ensure suitable bonding of the sealant to the mating surfaces.

The sealant does not require significant adhesive strength in itself, but it must bond positively to all the surfaces it is to seal. To ensure complete sealant cure, the width of sealant in a lap should not exceed 25mm when compressed (Figure 1.1).

APPLYING SEALANT

Always apply the bead of sealant in a continuous line along the centreline of the fastener holes. This ensures that, when compressed, the sealant positively seals the fastener.

Be careful not to entrap air when applying sealant. Especially, don't place a ring of sealant around fastener holes because entrapped air compresses during tightening of fasteners, and may blow a channel through the sealant, which could prevent the fastener from being sealed.

FASTENERS

Use solid or sealed fasteners (e.g. screws and blind pop rivets), otherwise you have to apply sealant to the hollow centre of open pop rivets.

To preserve the life of your cladding, is very important that fastener materials are compatible with the cladding (Refer to Section 2.9 of the LYSAGHT® Roofing & Walling Manual).

PROCEDURE

The preferred procedure for lap fabrication is:

1. Assemble, clamp and drill;
2. Separate components and remove drilling debris;
3. Clean joint surfaces as recommended above;
4. Apply bead(s) of sealant;
5. Relocate components and fix;
6. Externally seal each fastener if hollow blind rivets are used.

To prevent premature curing (which causes poor bonding), finish the joint as soon as practical after applying the beads of sealant. The manufacturer's specified sealant open times should be followed.

SEALANT CLEAN UP

With practice you will be able to judge the size of beads thus avoiding squeeze-out and the subsequent need to clean up.

Uncured sealant can be removed with a clean, dry rag and any excess then removed with a cloth lightly dampened with mineral turpentine or white spirits. Excess cured sealant is best removed with a plastic spatula to avoid damage to the surface finish of the metal.

Avoid any unnecessary smearing of sealant on surfaces intended for painting as silicone can affect adhesion of paint. Smear sealant may be treated by lightly abrading the area with a non-metallic scouring medium.

Figure 1.1

Typical joints with sealant.

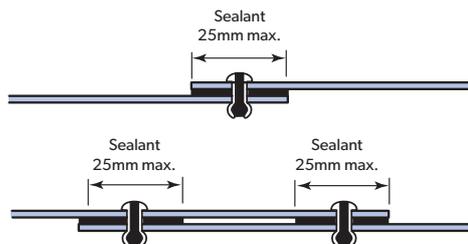
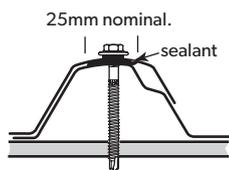


Figure 1.2

Typical crest with sealant.



MAINTENANCE

Factors that most affect the long life of a roof (or wall) are original design, the environment of the installation, and the maintenance of the installation. Maintenance is probably the biggest factor.

Maintenance includes:

- Regular inspection for problems before they become major corrosion sites;
- Regular washing down, especially near coastal or industrial influences;
- Removal of leaves and other debris from gutters, downpipes, leaf-guards, slots, holes and other overflow devices;
- Keep walls free of soil, concrete and debris near the ground;
- Don't overspray pesticide.

MAINTENANCE OF COLORBOND® PRE-PAINTED STEEL

The paint system on COLORBOND® steel sheet is very durable. Simple maintenance of the finish enhances its life and maintains attractiveness for longer periods.

Where the paint finish is naturally washed by rainwater (roofs, for example) there is usually no additional maintenance needed. However areas to be washed include soffits, wall cladding under eaves, garage doors, and the underside of eave gutters.

Washing should be done at least every six months and more frequently in coastal areas where sea spray is prevalent, and in areas where high levels of industrial fallout occur. Avoid accumulation of salty deposits or industrial dirt.

Establish a regular routine for washing COLORBOND® pre-painted steel products. Often garage doors can be washed with clean water at the same time as your car is being washed. Guttering and eaves can be hosed down when windows are being cleaned. Walls can be hosed down (if water restrictions permit) while watering the garden.

Where regular maintenance doesn't remove all the dirt, wash the surface with a mild solution of pure soap or non-abrasive non-ionic kitchen detergent in warm water. Use a sponge, soft cloth or soft bristle nylon brush; be gentle to prevent shiny spots. Thoroughly rinse off the detergent with clean water.

Never use abrasive or solvent cleaners (like turps, petrol, kerosene and paint thinners) on COLORBOND® steel surfaces. For advice on grease, oil or deposits not removed by soap or detergent contact our Information Service.

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Technical enquiries:
steeldirect@bluescopesteel.com or call 1800 641 417

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