

# SWARF STAINING: A COMMON CAUSE OF STAIN ON METAL ROOFS



Steel debris arising from cutting or piercing when using friction saws, abrasive discs etc., on steel products are usually given the term "Swarf".

Swarf may also be taken to include discarded steel objects such as rivet shanks, nails, screws and nuts, which may come into contact with coated steel products; i.e. [COLORBOND®](#) pre-painted steel and galvanised steel. Particles of such, if left on the steel surface, will cause rust stains from its own corrosion. This will cause unsightly rust stains - which are often mistaken for early deterioration of the coated steel product.

## PREVENTION GUIDELINES



### Cutting & Drilling

- Use cold cutting saw with a suitable tungsten blade. Particles generated are usually larger and cooler than those generated by abrasive saws blades.
- Reduce onsite cutting. Choose to opt for factory-supplied measured to fit sheets wherever possible.
- Complex or curved cuts are recommended to be done with powered hand shears.
- If cutting is necessary, sheets should be cut on the ground with the intended exterior surface facing down.
- If cutting must be done next to installed sheets, make sure hot particles are directed away from it.
- When drilling, ensure area around the hole is masked to shield the product from hot swarf.

### Clean Up

- The roof should be swept, blown, vacuumed or rinsed to remove loose particles.
- Detaching stuck swarf particles should be attempted with maximum care. Do not attempt any action that will risk removing the paint or metallic coating as doing so may lead to reduced material lifespan.
- Common sources of swarfs are from other trades working in the vicinity. Architects, builders and project managers must be aware and warn contractors accordingly.

## Effect on Performance

- Generally, swarf staining affects COLORBOND® roofing sheet aesthetically and may not be detrimental to the performance of the product.
- Red iron oxides are normally inert and do not attack pre-painted finish.
- Iron oxides are not soluble in water, stain caused by them will take considerable time to weather away naturally.

### ASK LYSAGHT!

If you have any questions, please email us at  
[lysaght.singapore@bluescope.com](mailto:lysaght.singapore@bluescope.com)



### [LYSAGHT](#) IS BIM READY!

Click [here](#) to visit our BIM Library for all BIM objects that are available for download.

**BIM**  
BUILDING  
INFORMATION  
MODELLING

Copyright © 2020 NS BlueScope Lysaght Singapore, All rights reserved.

The information and advice contained in this newsletter is of a general nature and has not been prepared with your specific needs in mind. You should always obtain specialist advice to ensure that the materials, approach and techniques referred to here meet your specific requirements. NS BlueScope Lysaght Singapore makes no warranty as to the accuracy, completeness or reliability of any estimates, opinions or other information contained in this newsletter and to the maximum extent permitted by law. NS BlueScope Lysaght Singapore disclaims all liability and responsibility for any loss or damage, direct or indirect, which may be suffered by any person acting in reliance on anything contained in or omitted from this newsletter.