

“Static” or Electrostatic Discharge “ESD”, is a natural phenomena that can occur in particular environmental conditions to many products, including fabrics, carpets, rubbers, plastics, metals and composites decking boards. It is important to note that ESD in composite boards is generally a short term phenomenon that decreases as the boards age. A combination of various factors may increase the chances of static specifically during times of changes in humidity, referred to as “Static Season”. For Southern Hemisphere countries “Static Season” is around July, August, September; for Northern Hemisphere countries, it is usually January, February, March.

The biggest generator of static is in fact the human body. Static is released when a person touches a metal object such as a railing or a door handle. A small shock can be experienced, but generally this only causes mild discomfort for a split second.

There are many variables that contribute to ESD, making the occurrence random and inconsistent, including but not limited to:

- Surface material
- Shoe material
- Humidity
- Wind / dust
- Usage
- An individual's capacity to dissipate charge
- The subframes capacity to dissipate charge

Durability is one of the key benefits of composite decking, even more so with capped composite decking boards. Engineered for maximum durability, the capping is a plastic layer which encapsulates the board, protecting the inner core from exposure to environmental elements. Along with all the great benefits of the protective coating, the coating is more susceptible to static in the short term.

Methods to **minimise static** are:

- Bare Feet (no socks and shoes)
- Apply mist spray of ACL Heavy Duty Staticide® to the area of static
- Hose area down with water

Methods to **dissipate static** are:

- Use mats at doorways/entrances on the area of static
- Use rubber inserts (supplied by Outdure) in between decking boards in the static prone areas
- Aluminium grate or strip
- Ground the frame

Comparative Performance Testing

The accredited testing and certification body, OTI Institute of Ecology, Technology and Innovation GmbH in Vienna (Austria), completed comparative tests of Outdure composite decking boards with three other major composite brands on the market. The test results for Outdure composite decking products proved favourable with less static than the other major brands, and are classified as “anti-static”.

Additionally Outdure commissioned testing by S+C-S Static Control Solutions Pty Ltd. in Sydney (Australia). The results found the level of potential static is to be similar or less value than common internal flooring products and less than other popular composite decking brands available in the Australian, New Zealand and International markets.

STATIC REDUCTION GUIDELINES

Outdure's products are classified as "anti-static", however Outdure suggest the following steps in order to aid reduction if ESD occurs:

1) CLEANER/ANTI STATIC SOLUTION

HOW TO:

Applied as required on top of board surface.

COMMENTS:

If preventative methods have been implemented and static is occurring for more than three months of the year, Outdure will provide ACL Heavy Duty Staticide® for the affected area. Outdure recommends applying it in a spray bottle with a fine mist option or, for a more even covering, it can be diluted 1:1 with water in a bucket and mopped on to the boards.

ACL Heavy Duty Staticide® is a non-toxic topical anti-static spray that leaves behind a surface-active residual substance that washes away with water over time. Since this product is not a permanent coating, re-applications are advised after weather conditions such as rains or snow. Static generated from composite materials decreases as the material ages, the recommended product application is regularly throughout the first year, and periodically after that if necessary.

Please note ACL Heavy Duty Staticide® is not an Outdure product, please refer to [ACL Heavy Duty Staticide](#) for comprehensive technical information including Product and Safety Datasheets. Disclaimer: Outdure does not accept responsibility for any damage caused by incorrect use or application of Heavy Duty Staticide® or any other static treatments.

2) RUBBER MATS

HOW TO:

Located at high traffic areas such as doorways/entrances/exits.

COMMENTS:

Charge that has been generated by a person can be dissipated into the rubber matt. If the rubber mats are grounded, they will dissipate the ESD even more effectively. For timber frame installations, rubber should be grounded directly to earth.

3) RUBBER STRIP

HOW TO:

Inserted in board gap between boards.

Frequency of installation is specific to deck area.

Can be installed in 1m strips at high traffic areas such as doorways/entrances/exits.

Can be installed in front of handrail locations.

COMMENTS:

Charge that has been generated by a person can be dissipated into the rubber strip. If the rubber strips are grounded, it will dissipate the ESD even more effectively. For timber frame installations, rubber to be grounded directly to earth.

4) ALUMINUM GRATE / STRIP

HOW TO:

Frequency of installation is specific to deck area.

Can be installed in 0.8m-2.8m strips at high traffic areas such as doorways/entrances/exits or in front of handrail locations, good for access and ventilation to membrane.

COMMENTS:

Charge that has been generated by a person can be dissipated into the aluminium grate, and then dissipated into the subframe, etc. For timber frame installations, rubber to be grounded directly to earth.

5) FRAME GROUNDING

HOW TO:

A minimum of 1x Grounding point of the aluminium subframe is recommended. 1x grounding point per 100m² is recommended but depends on the complexity/ shape and nature of the deck area.

COMMENTS:

When elements such as grate / rubber strip / rubber matt are grounded to the frame, the ESD dissipates to the frame. Earthing the frame will dissipate the ESD most effectively. Grounding a timber frame has no benefit.

If static is occurring after all other preventative methods have been implemented including application of Staticide® to the affected area, refer to Outdure's product warranty.