

ASIS Laminates Material Safety Data Sheet

MAINTENANCE

1. Maintenance & Cleaning

The day-to-day maintenance of ASIS laminates is simple and easy. It can be done by using a soft cloth or a soapy sponge. If the stain persists or is not removed after a few scrubs, take adequate amount of non-scratch liquid or cream, or an organic solvent (white spirit or acetone recommended) and rinse it well with warm water. Make sure all the residue is removed by using an all-purpose paper towel or lint-free cloth. Proprietary window cleaners are the best to avoid drying marks all over the glass. Most importantly, they are safe. Do not use abrasive products or cleaners (like scouring pads, steel wool, powders and black soap) or bleaching agents, wax furniture polishes and other cleaning products with high alkali or acid content.

Glue marks should be removed without delay. Neoprene or silicone joint spots should be cleaned with the right mix of solvent and vinyl glue along with hot water. Glue remnants can also be cleaned with acetone.

1.1.A note on textured finishes

Due to their distinctive nature, cleaning ASIS Laminates textured finishes can be more challenging when compared to smooth surfaces. To clean persistent marks, use nylon bristle brush along with any of the above-mentioned cleaners.

1.2. Resistance to stains

<p>There is no discolouration to the surface after 16 hours</p>	<p>Tea, fizzy drinks like cola, coffee, alcoholic drinks, wine vinegar, fruit and vegetables, meats and poultry, animal fats and oils, mustard, water, salt solutions, detergents, toothpaste, hand cream, nail varnish and nail varnish remover, lipstick, watercolour paint, laundry marking ink, ballpoint ink, soapy solutions, commercial disinfectants, acetone-based scouring solutions and other organic solvents, 10% citric acid, basic stain removers diluted with water (<10%), oxygenated water, ammonia (concentrated at 10%)</p>
<p>There is no discolouration to the surface if properly cleaned within 10-15 minutes</p>	<p>Formic acid (<10% hydrochloric acid, methylene blue (at 25%), caustic soda in water (30% acetic acid), sanitary whitening and cleaning agents based on hydrochloric acid (at 3%), bleach, acid cleaning agents for metals, Mercurochrome®, wax polish, colouring and colour lightening agents for hair, iodine dye, boric acid, varnish, lacquer and adhesives, hardening paint (except fast-drying products, limescale removers based on aminodosulfonicacids (<10%))</p>
<p>Risk that the surface will deteriorate</p>	<p>Acids concentration of over 10%: Aminosulfonic acid, hydrochloric acid, arsenic acid, nitric acid, perchloric acid, phosphoric acid and sulphuric acid.</p> <p>Strong acids: Hydrobromic acid, hydrofluoric acid, sulfochromic acid & chromic acid</p>

STORAGE & HANDLING

1. Storage

Always store ASIS Laminates panels flat face-to-face in a room having a temperature between 10°C and 30°C and humidity of 40% - 60%. It is recommended to use a cover board over the top sheet to keep it flat.

If horizontal storage is impossible, or only where small stocks of ASIS Laminates are stored, they can be stacked on the edge in slightly inclined (80° or thereabouts) vertical racks. Always use a cover board to prevent accidental slipping.

Panels must be allowed to acclimatize and stabilize before fabrication for at least 3 days.

2. Handling

Extreme care is necessary while handling ASIS Laminates to prevent breakages and damage. When loading and unloading, ensure that the sheets are lifted and not slid. Extra care is also necessary to avoid abrasion between the decorative surfaces.

When transporting the stacks of sheets via mechanical vehicles, appropriate pallet size must be used.

If panels are covered using a protective film, it should not be taken off and must be left as is as long as possible even after installation. However, it should not be for more than two months.

Individual sheets must be carried with the decorative face towards the body to reduce the risk of damage. Sheets are more rigid and easier to handle if they are bowed along their length. Large sheets must be handled by at least two people. For thin sheets of ASIS Laminates, they can be rolled with decorative face inwards into a diameter of no less than 600mm.

3. Machining & Cutting

Standard wood drilling, cutting and finishing machines can be used along with ASIS Laminates. However, preliminary tests must be done to understand the characteristics of the machines and the cutting speeds needed so that there is no overheating or defective finish.

3.1. Results with cutting tools

- **Industrial Circular Saw**: Use a large diameter blade (example: 240mm) having at least 80 teeth and at a rotation speed of 6,000 - 9,000 rpm.
- **Wall or Beam Saws**: It's the most convenient method to cut large sheets into smaller sizes.
- **Band Saws**: They are good for rough cutting work. Manganese steel blades with hacksaw shaped teeth are the best.
- **Jigsaws**: The upwards movement of jigsaw blades can cause chipping on the edge. Cuts must be made only with a fine-toothed blade while keeping the decorative side downwards.
- **High Speed Fixed Head Routers**: It can be used for operations like profiling, grooving and edge trimming. It is not necessary to speed up to or over 1 8,000 rpm. For curved work, first cut out a rough on a band saw leaving just 5mm all-round for trimming later on the router.
- **Portable Hand Routers**: Must-have for a clean hole cutting, edge finishing and trimming on-site. They can be fitted with small saws for on-site edge grooving of all panels.
- **Spindle Moulders**: The tips must be tungsten carbide and high speeds should be between 5000-8000rpm. This will give the best result. Milling heads and cutter blocks with disposable TCT or PCD cutters (both straight and profiled) provide a convenient method of machining edges, keeping downtime for sharpening to a minimum. Solid tipped cutter blocks with 4-10 blades will pay for themselves in operations like edge shooting, profiling and edge rebating.
- **Portable Hand Trimmers**: Compact hand electric trimmers having with speeds between 18,000 - 20,000rpm. They are mainly designed for decorative laminates.
- **Portable Circular Saw**: It can be deployed for on-site cutting and the direction of rotation requires the sheets to face down to prevent chipping. A fine-toothed saw blade is required to reduce final finishing.

4. Pre-conditioning

Pre-conditioning is the most significant factor in achieving stability in bonded panels. Implementing the right pre-conditioning of core materials, surfacing and backing laminates ensures movement of building blocks caused by climatic and humidity changes are minimum.

Always ensure that decorative laminates and core materials are acclimatised to avoid them from becoming too dry or too damp. The optimal conditioning temperature is between 10°C and 20°C and a humidity of 40% - 60%.

Sheets which will form the opposite faces of a composite board should be conditioned as a pair, with sanded backs together. The sheets combined in this manner must be stacked, covered and left for at least 3 days to achieve the right equilibrium and to get the strongest bond.

Core materials which are wood-based should have at least 9% moisture content. It is also necessary that the laminate contain the same moisture content, even though moisture meters for wood are not used for measuring moisture content of the laminate.

If the composite boards are to be used in an area close proximity to constantly low humidity, such as with radiator casings, laminates and core materials must be conditioned to suit similar conditions to avoid any major stress on the bond due to shrinkage or movement. Panels and boards faced with decorative laminate will always need the reverse faced with a similar material in order to counter-balance the effects of dimensional changes.

COMPOSITION

ASIS Laminates are synthetic veneers with high density and layers prepared from professionally selected paper impregnated with thermoset resins fused together under extreme heat and pressure. The surface layers, which come with incorporate solid colours, patterns or natural decors, are made possible by melamine-based resins to provide high-resistance to wear and tear, including impact and heat. The core layers are made from phenolic-based resins to ensure strength and flexibility.