

Technical Data Sheet

AS-4030 MS Flooring Adhesive



Physical Properties

Base:
One-component MS (Modified silane) polymer

Appearance:
Soft paste

Color:
Light brown

Working time:
~ 30 minutes
(at 25 °C & 50% R.H.)

Application temperature:
10 °C to 35 °C

Service temperature:
-20 °C to 90 °C

Storage:
Store in a dry and cool place with temperature below 30 °C.

Shelf life:
12 months

Packaging:

Content	Quantity
24 kg / pail (~15.3 L)	1 pail (3 x 8 kg packs)
600 ml / sausage sachet	20 sausages / carton

Description

ALSEAL MS Flooring Adhesive is an eco-friendly wood flooring adhesive formulated with advanced MS Polymer technology, eliminating common problems associated with traditional polyurethane adhesives. It cures on exposure to atmospheric moisture, and quickly forms a tenacious but elastic bond on wood flooring and wall decorative materials. When cured, it is waterproof and is not adversely affected by exposure to moisture or water. Its elastic characteristic allows the wood floor to expand and contract without adhesion failures.

The adhesive can be trowelled easily. Its non-slump formula enables notched trowel ridges to hold firm, bridging gaps between wood flooring and sub floor and reducing floor hollowness problem. Since it does not contain water or solvent, it will not cause dimensional changes in wood. It is also safe because it does not contain hazardous materials like isocyanate, and has a very low VOC content.

Features

- ◆ Good Environmental Choice Australia (GECA) certified
- ◆ Singapore Green Building Product Labelling Scheme (SGBPLS) endorsed
- ◆ ATFA-compliant adhesive
- ◆ Single-component – Ready for use, no mixing required
- ◆ Resistant to aging - Permanently elastomeric
- ◆ Free of solvent - non-etching & no shrinkage
- ◆ Free of isocyanate - Non-hazardous
- ◆ Free of water, 100% solid content - no dimensional changes in wood
- ◆ Notched trowel ridges hold firm - Minimize hollow spots by bridging gaps
- ◆ Rapid strength build-up and short curing time - Fast job completion
- ◆ Easy surface clean up - Easy cleaning on prefinished wood
- ◆ Non-flammable, non-hazardous, stable shelf life – Easy storage

Applications

Ideal for bonding wood floors to concrete, plywood, cured levelling compounds, moisture vapour barrier, OSB (underlayment grade), particle board, rubber underlay, gypsum board, ceramic tiles, stone, terrazzo, radiant heated subfloors, metal decking, steel, and aluminium. For other applications, please contact us.

Technical Data

Curing system	: Moisture curing
Density	: Approx. 1.57 g/mL
Tensile strength (ASTM D412)	: ≥0.8 N/mm ²
Lap shear strength (ASTM D1002)	: ≥0.5 N/mm ² (wood to wood)
Elongation (ASTM D412)	: ≥100%
Shore A hardness (ASTM C661)	: 35 – 45
VOC content (USEPA Method 24)	: 9.49 g/L

Types of Floorings

Most types of wood flooring including but not limited to:

- ◆ Solid wood plank/strip
- ◆ Parquet – wood block and mosaic
- ◆ Engineered wood
- ◆ Bamboo
- ◆ Acrylic impregnated wood
- ◆ Plywood
- ◆ Others

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Preparation

- ◆ The subfloor must be solid and structurally sound, flat, smooth, clean, and dry.
- ◆ The subfloor must be free of dust, dirt, grease, wax, loose paint, oil, sealers of ANY type, curing compounds, bond breakers, asphaltic residue, liquid adhesive remover, strippers, chemicals, or any other foreign substances that can potentially affect bonding.
- ◆ The subfloor must be flat to 3mm under a 3 meter straight edge, otherwise it will increase the risk of hollow spots under timber overlay.
- ◆ Any existing coating or adhesives must be completely removed. Mechanical treatment (e.g. shot blasting, grinding or sanding) may be required to achieve the subfloor conditions mentioned above.
- ◆ It is recommended to verify that the moisture content of the slab is below 4% by impedance meter (e.g. Tramex) but noting that floor installation is also subject to the wood flooring manufacturers' requirements who may require drier slabs. Flooring manufacturers may also have other slab moisture assessment requirements including in-slab moisture assessment to ASTM F2170.
- ◆ To address possible moisture migration that can result in wood swelling or cupping, ground floor slabs, or concrete slabs that have moisture levels exceeding the flooring manufacturers requirements, or where there is sufficient uncertainty over current or future slab moisture, should have Aseal AS-606 Epoxy Moisture Barrier applied to the slab.
- ◆ Radiant heated subfloors should be turned off 24 hours prior to and during installation to prevent premature curing of the adhesive.
- ◆ Recommended air temperature during installation – between 10°C - 35°C (50°F - 95°F), Relative Humidity – between 40% and 75%, subject to the requirements specified by wood flooring manufacturer.
- ◆ Do not install if the walls and ceilings of the area are not dry (e.g. after plastering or painting etc.).

Usage Instructions

Packs in Pail:

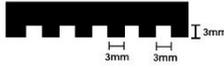
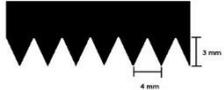
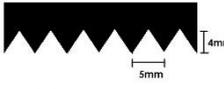
1. Remove the lid and cut open the foil liner. Once open, the entire contents should be used within the open time. During laying, the floorboards need to be placed into the adhesive within 30 mins and this is often 3 to 4 rows of board rows at one time.
2. Spread the adhesive with the proper notched trowel, apply uniformly on the subfloor. Avoid adhesive pools and excessive adhesive thickness by passing the trowel evenly through the adhesive at a 45 degree angle.
3. Place wood in the adhesive within working time, correctly position it and press down firmly or tamp down with a rubber hammer to ensure good overall contact. Wood may slip and move at first so be sure to secure the initial row to limit movement and hold patterns.
4. A minimum of 80% of adhesive contact is recommended to achieve proper bonding of the flooring. Heavy objects may be used to hold the wood firmly in place during the curing time, which may also assist if there are some boards with minor bow or boards over low spots in the slab.
5. Restrict foot traffic for a minimum of 12-16 hours. Wait a minimum of 24 hours before sanding and coating.

Sausage sachet:

1. Place the sausage sachet in a suitable application gun and snip off the end. Cut the tip off the nozzle to suit the application.
2. Apply the adhesive with appropriate force and speed.
3. Make sure the wood is positioned on the subfloor within the working time of the adhesive.

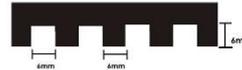
Note: In relying on mechanical fixing and use of beads of adhesive in applications to plywood, OSB, particleboard, joists or battens, follow wood flooring manufacturer's guidelines for layout, design and any special recommendations for installation.

Coverage

Floor Type	Trowel	Coverage
<ul style="list-style-type: none"> ▪ finger parquet 	 <p>Square Notch 3 mm x 3 mm x 3 mm</p>	Up to 2.0 m ² /L
<ul style="list-style-type: none"> ▪ ≤13mm solid wood ▪ ≤13mm engineered wood 	 <p>V Notch 4 mm x 3 mm</p>	Up to 1.4 m ² /L
	 <p>V Notch 5 mm x 4 mm</p>	Up to 1.2 m ² /L
<ul style="list-style-type: none"> ▪ 9-13 mm solid wood ▪ >13 mm engineered wood ▪ ≤19 mm parquet 	 <p>Square Notch 6 mm x 6 mm x 3 mm</p>	Up to 1.0 m ² /L

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- >13 mm solid wood
- plywood



Square Notch 6 mm x 6 mm x 6 mm

Up to 0.9 m²/L

- Trowel type and size are selected based on flooring type.
- Coverage rates shown are only guidelines. Coverage will vary with trowel size/type, angle the trowel is held to the subfloor, and the absorption level of substrate.
- Generally, use a fine trowel for wood of smaller sizes and/or smooth substrates, and a coarse trowel for wood of larger sizes and/or rough substrates.

Clean Up

- ◆ Can be cleaned up with acetone or mineral spirits when wet.
- ◆ Cured materials can only be removed mechanically.

Limitation

- ◆ Below grade applications are subject to wood flooring manufacturer's recommendations.
- ◆ Do not use on wet, dusty, contaminated or friable substrates.
- ◆ Do not dilute the adhesive.
- ◆ Resistant to water, dilute acids, and diluted caustic solutions, temporarily resistant to fuel, animal fats and oils, not resistant to organic acids, concentrated caustic solutions.
- ◆ Will not prevent damage to wood flooring induced by excessive moisture transmission.

Caution

Keep out of reach of children. Contains aminosilane. May produce an allergic reaction. Safety data sheet available on request. For further health and safety information, consult the latest safety data sheet.

Safe Work Practices

Product curing may form hazardous compounds. Ensure adequate ventilation and minimise workplace exposure concentrations. A NIOSH-approved respirator with filter for organic vapours is recommended where local ventilation is not adequate.

Protective goggles / safety glasses is recommended to wear during the job time.

Disclaimer

Every endeavour has been made to ensure that the information given herein is true and reliable but it is given only for the guidance of our customers. The company cannot accept any responsibility for the loss or damage that may result from the use of the information, due to the possibility of variations of processing or working conditions and of workmanship outside our control. Users are advised to confirm suitability of this product by their own tests.