

# 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:**  
 15 °C to 35°C
- Service temperature:**  
 -30 °C to 100 °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 troweled easily. Its non-slump formula enables notched trowel ridges 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.

### Applications

Ideal for bonding wood floors to concrete, concrete screeds, cement / sand screeds, anhydrite screeds, plywood, cured leveling compounds, epoxy membrane, OSB (underlayment grade), particle board, gypsum board, ceramic tiles, stone, terrazzo, radiant heated subfloors, metal decking, steel, aluminum, etc.

### Features

- ◆ Single-component – Ready for use, no mixing required
- ◆ Resistant to aging - Permanently elastomeric
- ◆ Free of water, 100% solid content - no dimensional changes in wood
- ◆ Free of solvent - non-etching & no shrinkage
- ◆ Free of isocyanate - Non-hazardous
- ◆ Low odor & low VOC – SGBPLS certified, meets LEED/SCAQMD rule #1168
- ◆ 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

### Technical Data

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



## AS-4030 MS Flooring Adhesive

### Types of Floorings

Most types of wood flooring including but not limited to:

- ♦ Solid wood plank/strip
- ♦ Parquet
- ♦ Wood blocks
- ♦ Wood mosaic
- ♦ Engineered wood
- ♦ Laminated plank
- ♦ Bamboo
- ♦ Acrylic impregnated wood
- ♦ Plywood
- ♦ Others

### Preparation

- ♦ Subfloor must be solid and structurally sound, flat, smooth, clean, permanently dry, no indentations and anti-adherents, as well as resistant to pressure.
- ♦ 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. Cleaning the subfloor with an industrial vacuum cleaner is recommended.
- ♦ Subfloor must be flat to 3mm over 3 meter, 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 subfloor conditions mentioned above.
- ♦ It is recommended to verify that the moisture content of the slab is <5.5%, and moisture vapour transmission rate is <15g/m<sup>2</sup> per 24 hour before commencing installation works. Excessive moisture in subfloor could affect wood flooring.
- ♦ To prevent moisture migration and subsequent wood swelling or cupping, ground floor slabs or new concrete slabs that do not meet the moisture conditions above are recommended to be coated with **Alseal AS-606 Epoxy Moisture Barrier**.
- ♦ Before installation, check moisture content of wood is as recommended by wood flooring manufacturer (generally 9% ±2%).
- ♦ 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

#### 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 subfloor within the working time of the adhesive.

#### Packs in Pail:

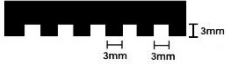
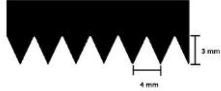
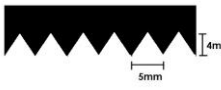
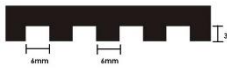

1. Remove the lid and cut open the foil liner. Once open, the entire contents should be used within a short period of time.
2. Spread the adhesive with the proper notched trowel, apply uniformly on the subfloor. Avoid adhesive pools and excessive adhesive thickness by passing the trowel evenly through 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. Minimum **80%** of adhesive contact coverage is recommended to achieve proper installation of parquet floor. Place heavy objects to hold the wood firmly in place during the curing time, especially on bowed boards or boards over low spots. It may be necessary to sort out bowed planks before installation.
5. When installing near a solid object or wall, leave ample room for expansion. Installing wood too tight against a stationary object will not allow room for normal wood expansion, which may cause a failure.
6. When the installation is complete, use wedges or some object to hold wood in place while adhesive dries. Remove wedges after initial setting of adhesive (approximately 2 hours) to allow for normal expansion of wood. Failure to remove wedges can cause the wood flooring to buckle and pop off the substrate.
7. Restrict foot traffic for a minimum of **12-16 hours**. Wait a minimum of **24 hours** before sanding and varnishing.

*Note: Follow wood flooring manufacturer's guidelines for layout, design and any special precautions for installation.*

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### Coverage

#### Adhesive only:

Floor Type	Trowel	Coverage
<ul style="list-style-type: none"> <li>finger block parquet</li> </ul>	 <p>Square Notch 3 mm x 3 mm x 3 mm</p>	Up to 2.0 m <sup>2</sup> /L
<ul style="list-style-type: none"> <li>≤13mm solid wood</li> <li>≤13mm engineered wood</li> </ul>	 <p>V Notch 4 mm x 3 mm</p>	Up to 1.4 m <sup>2</sup> /L
	 <p>V Notch 5 mm x 4 mm</p>	Up to 1.2 m <sup>2</sup> /L
<ul style="list-style-type: none"> <li>9-13 mm solid wood</li> <li>&gt;13 mm engineered wood</li> <li>&lt;19 mm parquet</li> </ul>	 <p>Square Notch 6 mm x 6 mm x 3 mm</p>	Up to 1.0 m <sup>2</sup> /L
<ul style="list-style-type: none"> <li>&gt;13 mm solid wood</li> <li>4' x 4' plywood</li> </ul>	 <p>Square Notch 6 mm x 6 mm x 6 mm</p>	Up to 0.9 m <sup>2</sup> /L
<ul style="list-style-type: none"> <li>Trowel type and size are selected based on flooring type.</li> <li>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.</li> <li>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.</li> </ul>		

### Limitations

- ◆ 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.
- ◆ Do not install solid wood over cutback residue or over VCT/vinyl.
- ◆ 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 due to environmental factors like leaky pipe.

### Clean Up

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

### 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.

### Disclaimer

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