



ARDEX AF 455 MS

One-Component Firm-Elastic Timber Adhesive

MS Polymer adhesive for timber floorcoverings

Moisture, weather and water resistant

High temperature resistance - for use in areas of direct sunlight

Very high bond strength

Very low emissions

Solvent free



ARDEX New Zealand Ltd
15 Alfred Street
Onehunga, Auckland 1061
Phone: 0800 227 339
Email: info@ardexnz.com
ardex.co.nz

ARDEX AF 455 MS

One-Component Firm-Elastic Timber Adhesive

DESCRIPTION

ARDEX AF 455 MS is a solvent free, low odour, wet bond, MS Polymer-based timber floorcovering adhesive.

ARDEX AF 455 MS is resistant to biodegradation and plasticiser migration.

ARDEX AF 455 MS meets the requirement guidelines for the EMICODE licence 'EC1 PLUS R', achieving very low emission limits.

USE

ARDEX AF 455 MS is ideal for installing all types of timber and cork floorcoverings, and can be used with all ARDEX levelling and smoothing compounds in both commercial and domestic locations.

ARDEX AF 455 MS is also suitable for use with chairs fitted with castor wheels.

PRIMING

Priming is not required over ARDEX levelling compounds.

Use ARDEX PU 30 over other substrates in accordance with its datasheet.

SUBSTRATE PREPARATION

The subfloor must contain an effective damp proof membrane and be dry, with a relative humidity of 75% or below. Where an effective damp proof membrane is absent, or the relative humidity of the subfloor is above 75% RH, contact ARDEX Technical Services for the correct product selection.

The surface being adhered to must be clean, firm and free of dust, dirt, oil, grease, curing compounds, release agents and other obstructive, 'barrier' materials. The surface being adhered to must also be structurally sound and of smooth surface, in accordance with the relevant clauses of AS 1884:2021.

Any dust should be removed using suitable vacuum equipment, prior to applying ARDEX AF 455 MS, as it can affect both the coverage and performance of the adhesive.

Uneven subfloors should be levelled with the appropriate ARDEX levelling and smoothing compounds e.g. ARDITEX NA (Engineered Timber only) or ARDEX K 15 Micro.

ARDEX A 46 can be used for repairs to the subfloor in accordance with the product data sheet.

Fabricated underlays such as flooring grade plywood (eg. BB, AB), should be installed where required over existing timber bases. Wood-based fabricated underlays should be suitable for the floorcovering and be at the equilibrium moisture content they will have in service at the time they are covered. Light organic solvent preservative (LOSP) treated plywood is not a suitable substrate.

MIXING

ARDEX AF 455 MS is ready for use and does not require mixing.

APPLICATION

The installation area and subfloor should be kept at the recommended temperature as specified by the floorcovering manufacturer and the relevant clauses of AS 1884:2021. These temperatures need to be maintained 48 hours prior to installation, during installation, and 48 hours after installation.

ARDEX AF 455 MS should not be used at floor temperatures lower than 15°C and 18°C room temperature. In these conditions, warm the adhesive prior to application. Relative humidity should be between 40% and 65%, maximum 75%.

ARDEX AF 455 MS can be applied evenly in stripes on the substrate using a sausage gun with an application nozzle. The stripes should be applied across the laying direction at a distance of 8-10cm apart, depending on the parquet material and length.

ARDEX AF 455 MS adhesive can also be applied with a trowel. Cut open the foil bag and press out the adhesive. Immediately push the engineered timber floor into place and press firmly once adequate airing time has occurred. This may be between 0-20 minutes, depending on ambient conditions. Ensure adequate wetting of the underside of the wood.

Tools must be cleaned immediately after use with cleaning cloths. After curing, ARDEX AF 455 MS adhesive can only be removed mechanically.

All information is valid for approximately 23°C and a RH of 50%

Depending on the type of installation, the following advice should be observed:

Apply timber flooring by pressing down firmly. Ensure that the underside of each piece is sufficiently coated with adhesive.

Apply cork flooring by pressing into wet adhesive with a manual roller. After 60 to 120 minutes each cork section will need to be pressed again in order to ensure full adhesion.

Do not allow the floor to be wet cleaned immediately after the floorcovering has been installed. Allow significant time for the adhesive bond to develop before wet cleaning commences, typically 48 hours at 20°C.

When applying adhesive onto the substrate, ensure that any adhesive which is surplus to requirements, and has been moved across the subfloor, is not placed back into the container. It should be placed into an alternative container for safe, easy disposal. This will avoid possible contamination issues.

UNDERFLOOR HEATING

Underfloor heating systems should be commissioned in accordance with the heating manufacturer's instructions; if instruction cannot be found then the guidance given in AS 1884:2021 should be followed.

Thermal cycling of the subfloor will require raising the temperature of the substrate slowly to full operating temperature, held for a defined period, and slowly brought back down so that any shrinkage that is likely to take place occurs before the floorcovering is installed.

Moisture tests are required to verify the relative humidity of the substrate, the underfloor heating system should be switched off for 48 hours prior to testing.

After the tests are completed, the heating system should be stabilised to room temperature, but not below 15°C, before installing the floorcovering.

The floorcovering should be allowed to acclimatise to the substrate temperature before installation with ARDEX AF 455 MS.

After installation allow at least 48 hours of constant temperature for the adhesive to properly cure, before slowly increasing the temperature up to the normal operating temperature of the area at a rate of approximately 2°C per day. Do not subject the floor to static or dynamic loads, loaded trolleys, etc. or move fixtures, furniture, etc. onto the flooring until the adhesive has fully set, typically 48 hours at 23°C.

HIGH TEMPERATURE

ARDEX AF 455 MS is suitable for use over underfloor heating systems and is classified as high temperature resistant. ARDEX AF 455 MS is suitable for use in areas of high solar gain such as conservatories and northerly facing aspects. The surface floor temperature must not exceed 50°C for prolonged periods.

Consult the floorcovering manufacturer for detailed guidance.

CLEANING

Remove spills or seepage with heavy duty cleaning wipes. Aggressive cleaning agents should only be used with the permission of the floorcovering manufacturer.

PACKAGING

ARDEX AF 455 MS is packed in a 600ml foiled 'sausage' for use with sausage glue guns or the end can be scissored off and material squeezed out directly onto the substrate for trowelling.

COVERAGE

The actual coverage achieved in practice is affected by application technique, as well as the texture and absorbency of the subfloor. Please refer to the coverage guide at the end of this document.

STORAGE

ARDEX AF 455 MS has a shelf life of 18 months if stored in good conditions, between 5°C and 30°C, in the original unopened container. Do not allow to freeze.

PRECAUTIONS

ARDEX AF 455 MS is non-hazardous in normal usage, however, good hygiene practices should be followed.

Avoid contact with skin; wash off with soap and water before drying takes place. In case of contact with eyes, rinse carefully and thoroughly with water and seek medical advice. In case of ingestion seek medical assistance. Consult the relevant Safety Data Sheets for further information.

WORDING AND TERMINOLOGY

Airing Time

The time the adhesive must be left open before applying the floorcovering. Up to 20 minutes, depending on the absorbency of the subfloor and ambient conditions.

Working Time

The time in which the adhesive can receive the floorcovering after the initial airing time. Up to 40 minutes.

Open Time

The combination of airing and working time. Up to 60 minutes.

The guidance from the floorcovering manufacturer should always be followed if different from the information contained in this Technical Data Sheet.

Toll Free Technical Services:





0800 227 339 (New Zealand)

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable New Zealand & Australian Standards, our instructions and recommendations and only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program. Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them.

© ARDEX New Zealand Ltd 2022.

All aforementioned products are the trademarks of ARDEX New Zealand Ltd, its licensors and affiliates.

COVERAGE GUIDE

Flooring Type	Trowel Size	Coverage
Cork flooring	A2 	Up to 1.4m ²
Small format parquet/timber	B3 	Up to 0.6m ²
Engineered timber	B11 	Up to 0.5m ²
Solid planks	B13 	Up to 0.4m ²