

ACTFLEX MS PRO



Technical Data Sheet

One-Component Moisture-Curing MS Polymer Adhesive & Joint Sealant

6 August 2026

Description

ACTFLEX MS PRO is a one-component, moisture-curing, non-slump silane-modified polyurethane (MS polymer) adhesive and joint sealant. It is supplied ready to use in a 600 mL sausage for sealing correctly designed construction and movement joints and for bonding approved construction substrates.

ACTFLEX MS PRO may be used in approved FORSPEC waterproofing system details at junctions, penetrations and terminations where compatibility between the substrate, primer, sealant and adjoining membrane has been confirmed. It is not a standalone waterproofing membrane, structural adhesive, structural-glazing sealant or trafficable floor-joint sealant.

Uses

- Sealing correctly designed horizontal and vertical construction and movement joints.
- Bonding prepared concrete, masonry, cement render, fibre-cement sheet, ceramic tiles, glass, compatible metals and suitable uncoated timber.
- Internal and external above-ground joints not exposed to permanent immersion, hydrostatic pressure or unverified chemical service.

Detailing approved FORSPEC waterproofing-system junctions, penetrations and terminations where the applicable system detail confirms compatibility.

- General sealing and bonding where the joint geometry, substrate condition, movement demand and service exposure are suitable for the product.

Advantages

- One-component and ready to use; no site mixing is required.
- Non-slump consistency for horizontal and vertical application.
- Moisture-curing formulation.
- Silicone-free, solvent-free and isocyanate-free formulation.
- High non-volatile content.
- Available in black, grey and white.

- Supplied in a 600 mL sausage for controlled gun application.
- Can be overcoated after full cure where coating compatibility is confirmed by a trial area.
- Suitable for a range of prepared mineral and non-porous construction substrates, subject to the specified primer and adhesion controls.

Technical Properties

The following values are typical FORSPEC internal manufacturer data and are not minimum specification limits or a guarantee of site performance. Results may vary with batch, test method, temperature, relative humidity, joint geometry, substrate and curing conditions.

PROPERTY	TYPICAL RESULT	TEST BASIS OR CONDITION
Appearance	Homogeneous non-slump paste	As supplied
Colour	Black, grey or white	As supplied
Chemical base	Silane-modified polyurethane / MS polymer	Manufacturer formulation data
Cure mechanism	Atmospheric moisture	Manufacturer formulation data
Density	1.63 kg/L	FORSPEC internal data
Non-volatile content	99%	FORSPEC internal data
Extrudability	600 g/15 s	FORSPEC internal method
Sag	1 mm	20 mm profile at 25 °C; FORSPEC internal method
Tack-free time	Approximately 15 minutes	25 °C; affected by temperature, humidity and bead geometry

Technical Properties

PROPERTY	TYPICAL RESULT	TEST BASIS OR CONDITION
Cure speed	Approximately 2.0 mm/day	25 °C; affected by temperature, humidity, joint depth and access to atmospheric moisture
Shore A hardness	Approximately 45	DIN 53505; FORSPEC internal data
Tensile strength	1.7 MPa	DIN 53504; FORSPEC internal data
Elongation at break	350%	GB/T 528; FORSPEC internal data
Tear propagation resistance	≥6 N/mm	GB/T 529; FORSPEC internal data
Movement accommodation factor	12.5%	FORSPEC internal data; not a third-party movement classification
Application temperature	+5 °C to +35 °C	Ambient, substrate and product
Service temperature	-10 °C to +65 °C	Fully cured product

No ASTM C920, ISO 11600 or Class 3 classification is declared in this edition. The stated 12.5% movement accommodation factor is internal manufacturer data and must be assessed against the project joint design.

Physical Properties and Packaging

CHARACTERISTIC	CONFIRMED INFORMATION
Supply form	Ready-to-use, one-component non-slump paste
Packaging	600 mL sausage
Colours	Black, grey and white
Mixing ratio	Not applicable
Shelf life	10 months from date of manufacture under the stated storage conditions

Coverage and Yield

Theoretical linear coverage for one 600 mL sausage is calculated as: **Coverage (m) = 600 ÷ [joint width (mm) × sealant depth (mm)]**

Joint width × depth	Theoretical coverage per 600 mL sausage
5 mm × 5 mm	24.00 m
10 mm × 5 mm	12.00 m
10 mm × 10 mm	6.00 m
15 mm × 7.5 mm	5.33 m
20 mm × 10 mm	3.00 m
25 mm × 12.5 mm	1.92 m
30 mm × 15 mm	1.33 m
35 mm × 17.5 mm	0.98 m

Coverage is theoretical and excludes material retained in the sausage and nozzle, joint irregularity, substrate profile, overfilling, tooling loss and normal application wastage. The table is a quantity guide only and does not determine the required joint design.

Priming

Primer selection depends on the substrate and service conditions. Apply only an approved primer and follow its current Technical Data Sheet.

- For PVC, glass, glazed tiles, compatible metals and other approved non-porous substrates, apply ACTFLEX SUPERPRIME 008 as one continuous thin coat. Do not over-apply or allow the primer to pond.
- Allow ACTFLEX SUPERPRIME 008 to dry fully before applying ACTFLEX MS PRO. Typical drying time is 5-15 minutes, depending on humidity and site conditions.
- For concrete, masonry, fibre cement, timber, coated surfaces or an unlisted substrate, complete an adhesion trial and obtain the applicable FORSPEC primer requirement before application.
- Do not substitute a membrane primer, epoxy moisture barrier or other primer unless the complete interface is specified in an approved FORSPEC system detail.

Surface Preparation

All joint faces and bonding surfaces must be sound, stable, clean and dry. Remove laitance, dust, loose or friable material, oil, grease, curing compounds, coatings, release agents, efflorescence, oxidation and other contaminants that may inhibit adhesion.

- Mechanically prepare concrete, masonry, cement render and fibre-cement surfaces where required to expose a clean, sound and open-textured surface. Remove all preparation dust using industrial vacuum equipment.
- Degrease and abrade compatible metals where required. Remove corrosion, oxidation and preparation residue before priming or sealing.
- Clean glass, glazed ceramic and approved non-porous substrates without leaving detergent, solvent or cleaner residue.

- Timber and wood-based substrates must be dry, stable, uncoated and suitable for the expected movement and service conditions. Complete a trial adhesion test before use.
- New concrete, render, mortar and screed must be fully cured, dry and dimensionally stable before application.
- Repair voids, blowholes and damaged joint arrises with a compatible FORSPEC repair material. Allow the repair to cure before sealing.
- Do not apply over standing water, visible moisture, condensation, active leakage, frost or a contaminated surface.
- Complete a site adhesion trial where the substrate, coating, primer or service exposure has not previously been approved in writing by FORSPEC.

Joint Design

The responsible specifier or engineer must determine the joint location, width, depth, movement demand, backing material and sealant suitability for the project conditions.

- Confirm that the required joint movement is within the stated 12.5% internal movement accommodation factor before specifying or applying ACTFLEX MS PRO. Do not use this value as an ASTM, ISO or third-party classification.
- Joint width must be between 5 mm and 35 mm unless a project-specific written detail states otherwise.
- Use a nominal 2:1 width-to-depth ratio where this does not reduce the sealant below the required minimum depth.

- Maintain a minimum sealant depth of 5 mm against sound non-porous joint faces.
- Against porous or deteriorated joint faces, provide a minimum 8 mm bonding depth where the joint geometry permits. If this depth cannot be achieved, obtain project-specific approval before use.
- Install a compatible closed-cell backing rod or bond-breaker tape to control sealant depth and prevent three-sided adhesion. The sealant must bond only to the two opposing joint faces.
- Select the backing rod diameter so it remains securely compressed without being punctured or damaged during installation.
- Do not use the coverage table as a substitute for movement-joint design.

Applications

- Confirm that the substrate, joint design, primer, backing material, adjoining products and service conditions are approved for ACTFLEX MS PRO.
- Apply only when the ambient, substrate and product temperatures are between +5 °C and +35 °C. Do not apply during rain, condensation or where moisture can contact the uncured sealant.
- Prepare the joint and install the backing rod or bond-breaker tape at the specified depth. Mask adjoining surfaces where a clean edge is required.
- Apply the specified primer only to the joint faces. Prevent primer from ponding or contaminating the backing material. Allow the primer to reach the condition stated in its current TDS.
- Place the 600 mL sausage in a compatible sausage gun. Open the sausage, fit the nozzle and cut the nozzle to the required bead size in accordance with the gun manufacturer's instructions.

- Extrude ACTFLEX MS PRO continuously from the base of the joint. Keep the nozzle within the sealant bead and fill the joint without entrapped air, gaps or loss of contact with either joint face.
- Where more than one pass is required, apply each pass wet-on-wet before skin formation and compact the passes into one continuous seal.
- Tool the sealant immediately and before skin formation to compact the surface and achieve full contact with both joint faces. Do not use water, detergent, solvent or an unapproved tooling liquid.
- Remove masking tape immediately after tooling and before the sealant forms a skin.
- Protect the completed joint from movement, contamination, rain, standing water, immersion, washdown and premature service until fully cured.

Application Control Checklist

Stage	Key control
Pre-start	Confirm substrate, joint geometry, movement demand, backing material, primer, temperature and service exposure.
Preparation	Confirm the joint faces are sound, clean, dry and free from contaminants. Complete any required adhesion trial.
Installation	Check backing-rod depth, primer coverage, full contact with both joint faces, absence of entrapped air and correct tooling.
After application	Protect the joint and record the application date, temperature, joint depth and required cure period.

Curing & Return to Service

ACTFLEX MS PRO typically becomes tack-free in approximately 15 minutes and cures at approximately 2.0 mm per day at 25 °C. These are typical internal guide values. Lower temperature, lower humidity, greater depth, restricted air exposure and non-porous joint geometry can extend cure. Higher temperature and humidity can reduce skin time and available tooling time.

Calculate the indicative cure period from the maximum one-sided cure depth. At the stated typical cure speed, a 10 mm depth requires approximately 5 days at 25 °C. This calculation is indicative only; confirm that the sealant is fully cured before water exposure, coating, loading or return to service.

Protect the sealant from movement, contamination, rain, standing water, immersion, washdown and service exposure during cure. Overcoat only after full cure and after a successful compatibility trial. A rigid coating over a moving sealant joint may crack, discolour, collect dirt or reduce joint movement capability.

Limitations

- For professional use only.
- Do not use without confirming the substrate, joint design, movement demand, primer, backing material and complete system compatibility.
- Apply only between +5 °C and +35 °C. Do not apply to wet, visibly damp, frozen, contaminated or condensing surfaces.
- Do not apply to polyethylene, polypropylene, polybutylene, polycarbonate or bitumen unless written FORSPEC compatibility approval is provided.
- Do not use for structural glazing, trafficable floor joints, structural bonding, load transfer, anchoring or safety-critical fixing.
- Do not use where the cured sealant will be subjected to hydrostatic pressure, pneumatic pressure, active leakage, permanent immersion or continuous water pressure.
- Potable-water contact is not approved unless supported by current product-specific certification.
- Do not use in continuous or unverified chemical exposure. Confirm compatibility before exposure to acids, alkalis, solvents, fuels, cleaning agents or process chemicals.
- Do not permit three-sided adhesion. Use a compatible backing rod or bond-breaker system.
- Do not exceed the stated joint-width range without a project-specific written detail.
- Do not use ACTFLEX MS PRO as a standalone waterproofing membrane or as a substitute for an engineered movement-joint detail.
- Do not overcoat before full cure. Confirm coating compatibility by a trial area; coatings may restrict movement or lose adhesion.
- Do not dilute or mix the product with water, solvent, filler, accelerator or any other material.
- Do not expose the cured product outside the stated service-temperature range of -10 °C to +65 °C.
- Do not use damaged, contaminated, skinned, deteriorated or expired material.

Cleaning

Remove uncured ACTFLEX MS PRO from tools and adjacent surfaces immediately using dry disposable wiping material followed, where required, by a compatible sealant cleaner approved for the substrate. Follow the cleaner's current Safety Data Sheet. Do not use an unapproved solvent or discharge product, cleaner or wash water into drains, sewers, soil or waterways.

Cured ACTFLEX MS PRO can only be removed mechanically. Wear the protective equipment required by the current ACTFLEX MS PRO SDS and the cleaning-product SDS. Dispose of product, contaminated materials and packaging through an authorised facility in accordance with local requirements.

Shelf Life, Storage & Packaging

- Shelf life is 10 months from the date of manufacture when stored in the original, unopened and undamaged 600 mL sausage.
- Store at 10-25 °C and below 50% relative humidity in a cool, dry, locked and well-ventilated place.
- Protect from sunlight, heat, moisture, incompatible materials and physical damage.
- Keep containers tightly closed and away from strong acids, bases and foodstuffs.
- Check the packaging, batch identification and expiry information before use. Do not use damaged or expired material.
- Available colours: black, grey and white.

System Compatibility & Technical Support

ACTFLEX MS PRO may contact or be overcoated with a FORSPEC waterproofing membrane only where the complete substrate-primer-sealant-membrane interface and cure sequence are stated in an approved FORSPEC system detail. Allow ACTFLEX MS PRO to cure fully before applying a compatible coating or membrane unless the approved system detail states otherwise.

Where the substrate, primer, backing material, coating, membrane, chemical exposure or joint movement is uncertain, complete a trial application and obtain written advice from Forspec Technical Support before work proceeds.

Health & Safety

- ACTFLEX MS PRO is a hazardous chemical and is not regulated as dangerous goods for transport under the ADG Code. Signal word: DANGER.
- Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing cancer. Harmful to aquatic life.
- Obtain special instructions before use. Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapours or spray.
- Wear protective gloves, protective clothing, eye protection and face protection. Use respiratory protection where required by the current SDS and workplace risk assessment.
- Avoid skin and eye contact. Wash exposed skin thoroughly after handling. Do not eat, drink or smoke while handling. Prevent release to drains, soil or waterways.
- If in eyes, rinse cautiously with water for at least 15 minutes, remove contact lenses if present and easy to do, continue rinsing and obtain immediate medical attention. If on skin, remove contaminated clothing and wash with water and soap. If inhaled, move the person to fresh air. If swallowed, do not induce vomiting; rinse the mouth and obtain medical advice.
- For emergency advice in Australia, call the Poisons Information Centre on 13 11 26. Follow the current SDS for complete first-aid, spill, fire, storage and disposal requirements.

Limitations

For **ACTFLEX MS PRO**, the following restrictions apply:

- It should not be used with polyethylene, polypropylene, polybutylene, polycarbonate, and bitumen.
- Avoid applications in structural glazing or floor joints.
- Avoid applications in pipes or where exposure to hydrostatic or pneumatic pressures (other than wind pressure) is likely.
- Do not use in areas with continual exposure to aggressive solvents or chemicals.
- Avoid application on painted timber or wood-based products.
- While **ACTFLEX MS PRO** can accept water-based and multi-component coatings, it's essential to note that, like all elastomeric sealants, coatings may lead to undesired side effects. These may include reduced movement accommodation ability and long-term issues such as dirt pick-up and discolouration.

Important Considerations

ACTFLEX MS PRO is intended for professional use. The specifier, engineer, contractor and applicator must assess product suitability for the substrate, joint geometry, expected movement, exposure, adjoining materials and complete project system. Site conditions affect adhesion, skin formation, cure and service performance. For project-specific advice, contact Forspec Technical Support at (02) 8021 3517 or info@forspec.com.au.

Data Sheet

This Technical Data Sheet and the applicable Safety Data Sheet may be revised as product information, regulatory requirements or technical data change. Before use, confirm that the current TDS and current SDS have been obtained. The information is representative and does not replace a project specification, engineering design, approved system detail or site-specific risk assessment.

Conditions of Use, Product Disclaimer, and Statement of Responsibility

The information in this Technical Data Sheet is provided in good faith and is believed to be accurate at the date of issue. It is general technical information only. All performance, curing, density, coverage and application values are typical guide values based on supplied FORSPEC internal manufacturer data and are not minimum specification limits, third-party certification or a guarantee of site performance. Actual results may vary with batch, test method, substrate, temperature, humidity, joint geometry, application technique and curing conditions.

The customer, specifier, contractor and applicator are responsible for obtaining the current TDS and SDS, confirming product and system suitability, verifying substrate condition, completing the required surface preparation, selecting the correct primer and backing material, controlling environmental conditions, observing joint-design and cure requirements, protecting the work and confirming compatibility with adjoining products and subsequent coatings.

Project selection, joint design, movement capacity, sequencing, quality control and compliance with applicable Australian Standards, legislation, workplace safety requirements and contract documents remain the responsibility of the relevant project parties. Advice or assistance provided by Forspec Protective Coatings is given in good faith but does not transfer responsibility for design, supervision, workmanship or project outcomes.

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