



Act-Flex 75FC

Multi-purpose Polyurethane Adhesive Joint Sealant

Technical Data Sheet

Updated: 30 January 2019

DESCRIPTION Act-Flex 75FC is a fast, moisture curing, flexible, high modulus, polyurethane joint sealant and multipurpose adhesive for various applications. After curing, it provides a permanently elastic bond to fasten materials with different coefficients of expansion. Used to seal and provide waterproofing to corner junctions, gaps, penetrations, cracks, and joints.

APPLICATIONS

1. As a joint sealant for vertical and horizontal joints.
2. Waterproofing rivet seams.
3. Sealing and caulking expansion joints, pre-cast concrete panel joints.
4. Bonding PVC and Metal angles to concrete, FC sheeting and timber.
5. Soundproofing of pipes between concrete and sheathing.
6. As an elastic joint sealant for sealing joints in concrete, epoxy and stone tiles.
7. Sealing penetrations in walls and floors for piping etc.
8. Vehicle bodies and cab construction including panels, underbody components, and roofing.
9. Waterproofing exterior lap seams in many applications, e.g. truck trailers, RV's, metal roofs, window perimeters.

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| <p>ADVANTAGES</p> <ol style="list-style-type: none">1. Easy to apply2. Very good adhesion to a wide range of substrates.3. One part, ready to use.3. Cures rapidly to a permanently elastic consistency with excellent tear resistance.4. Low odor, non-staining.5. Non-Sag6. Good mechanical properties7. Can be over painted with many flexible paint and rubber systems. (Preliminary tests recommended).8. Non-corrosive.9. Provides shock resistance and vibration damping.10. Exhibits high recovery, making it ideal for sealing moving joints.11. Weather and aging resistant.12. Fast cure rate13. High durability |
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Chemical base	1-C polyurethane
Colour	Black, white, grey
Cure mechanism	Moisture-curing
Density (DIN 53479)	1.40 ± 0.05 kg/l
Non-sag properties	Good
Application temperature	5°C-35°C
Skin Time	45 to 65 min. approx. depending on temperature
Tack-free time*	30mins approx. depending on temperature.
Cure Time	5mm / 24hrs approx. depending on surface and weather
Shrinkage	5% approx.
Shore A hardness (DIN 53505)	40 approx.
Tensile strength (DIN 53504)	2.5N/mm ² approx.
Elongation at break (DIN 53504)	550% approx.
Tear propagation resistance	≥6N/ mm
Movement accommodation factor	12.5%
Service temperature (permanent)	-20°C to +60°C

*= at 23°C and 50% relative humidity

PROCESS

For good adhesion, all surfaces must be sound, clean, dry and free of all dust, grease, loose materials and other contaminants. If needed, insert backing rod to required depth.

Primer surface with a suitable primer to achieve optimal adhesion.

Cut off joint sealant cartridge metal seal, cut gun nozzle to desired bead size and screw nozzle onto the gun.

Place cartridge into the caulking gun

Use a caulking gun to extrude the Act-Flex 40FC into the joint ensuring that it is in full contact with the sides of the joint and avoiding any air entrapment. Tool off to gain good adhesion before skin starts to form (approx. 10-15 minutes).

Wide joints will require more than one pass to make sure that Act-Flex 75Fc is in full contact with the sides and bottom of the joint.

Final tooling of the joint surface can be done effectively with a spatula dipped in 20% solution of washing detergent in water (test to ensure it does not dis-colour the cured Act-Flex 75FC)

Clean excess sealant immediately with a cloth dampened in mineral turpentine.

When neat lines are required masking, tape is to be used. Remove the tape whilst the sealant is still soft.

Allow Act-Flex 75FC to at least skin before applying Actech AT-929 SPU or Actech AT-930 waterproofing membranes.

Act-Flex 75FC should be fully cured if applying water based such as AT-906 WPU membranes over it.

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Sealing & Bonding: Prepare substrate as above and extrude Act-Flex 40FC in strips or spots on the bonding surface at intervals of a few centimetres. When used to bond surfaces together, you must hold down applying pressure to set the item to be bonded into position. If necessary, use adhesive tape, wedges, or props to hold the assembled elements together for the initial hours of curing. If weight exceeds 7kg per m² then surface must be supported for up to 15 hours.

An incorrectly positioned element can be easily unfastened and repositioned in the first few minutes after application. Apply pressure again.

After complete curing of Act-Flex 40FC, i.e. after 24 to 48 hours at +23°C for a thickness between 2 to 3 mm maximum bonding will be obtained.

JOINT DESIGN

To ensue good joint sealing it is recommended that the joint be a minimum depth of 10mm and a maximum of 35mm with joints up to 12 mm wide, width to depth ratio = 1:1 and joints over 12mm wide, width to depth ratio = 2:1.

CLEANING Use a cloth dampened with mineral turpentine to clean tools within 15 mins of use

PACKAGING 600ml foil packs (carton of 20)

STORAGE AND SHELF LIFE

When stored in the original, unopened/undamaged containers, in cool dry conditions and protected from sunlight at temperatures between 10°C and 25°C the shelf life is 10 months

The shelf life of polyurethane sealant is related to the temperature and humidity of the environment.

The recommended storage temperature is 10-25°C, humidity is <50% RH.

Do not transportation or store in areas with temperature is over 30°C or the humidity is over 80% RH.

SAFETY PRECAUTIONS

Act-Flex 75FC is generally harmless but normal chemical safety handling precautions must be adhered to.

DO NOT eat, drink or smoke when handling Act-Flex 75FC.

When handling always use nitrile rubber gloves, safety boots and safety glasses with side shields. Use breathing respirators at all times.

The product contains isocyanate, which may cause skin and eye irritation. Avoid eye-contacting and ingestion.

After use wash skin with soap and warm water. Use disposable paper towels to dry the skin. Always use in well ventilated areas.

DO NOT allow wash water from cleaning or process equipment to enter drains.

DO NOT discharge into sewer or waterways.

DO NOT seal or stopper drums being decontaminated as CO₂ gas is generated and may pressurise containers.

See the material safety data sheet for more information. For up to date data or a copy of the SDS it is always best to request a copy from The Waterproofing Shop on 02 8021 3517 or email admin@thewaterproofingshop.com.au

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Read the MSDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Use for intended purpose only. Observe good industrial hygiene. Keep all sources of ignition away. Use in well ventilated areas. If on skin, wash immediately with soap and water. If in eyes, immediately flush thoroughly with clean water and seek urgent medical attention. Product is very thick, so splashes is unlikely. Inhalation is unlikely, but remove person to fresh air and seek urgent medical attention.

IMPORTANT NOTES

- Act-Flex 75FC is best stored at temperatures between 10°C and 25°C in dry areas.
- For best results use opened sausage the same day otherwise the Act-Flex FC75 in the nozzle will cure and have to be removed.
- When applying sealant, avoid air entrapment
- Do not use in high movement expansion joints.
- Joint movement must not exceed +10% of joint width
- Act-Flex FC75 is not recommended for use in swimming pools or swimming spas.
- Where needed use a backer rod in joint before priming.
- Act-Flex 75FC may yellow and chalks when exposed to UV
- Protect from water immersion during the first 48 hours of cure
- When painting over we recommend that a compatibility test should be performed to determine that paint dries properly and that the paint does not soften or stain where it comes into contact over the Act-Flex FC75 when exposed to heat and the sun.
- Do not use mineral turpentine or solvent based solutions as tooling aids.
- Act-Flex has non-adhesion to silicon and bituminous substrates.
- Non-resistant to alcohols, organic acids, concentrated alkalis and concentrated acids, chlorinated (hydro-carbons) fuel.
- Ensure epoxy resin coatings are fully cured prior to use of Act-Flex FC75 as the uncured components may inhibit the cure of the Act-Flex FC75.
- May be painted after full cure with conventional acrylic paints but preliminary tests should be done. Joint movement may result in the paint cracking.

DATA SHEETS

Data provided is typical but does not constitute a full specification.

This should be sighted from the company for specific projects.

This Technical Data Sheet and the Material Safety Data Sheet (SDS) may be revised at any time to comply with relevant changes to the Australian Standards or to include changes to current technology.

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