



FLEX-PRO MS **FLEXIBLE MULTI PURPOSE HYBRID POLYMER SEALANT**

DESCRIPTION

AFTEK FLEX-PRO MS is a one-component sealant based on silane modified polymer, which is moisture cured sealant. Humidity and temperature can influence on the skin formation and curing speed, and the joint depth can also influence on the curing time.

AFTEK FLEX-PRO MS is free of solvents, isocyanates, silicones and PVC. It has very low VOC while curing. It performs good adhesion to most substrates; It is suitable for most of common construction materials, especially to concrete, aluminum, mason, glass, etc. and it is compatible with most of paint systems.

It has very good UV resistance property that can be used for interior and exterior applications.

APPLICATIONS

AFTEK FLEX-PRO MS is designed for use on:

- Sealing/bonding in the building & construction industry
- Suitable for use as a bondbreaker, for all RLA Acrylic membranes
- Elastic bonding in vibrating constructions
- Concrete expansion joints
- Sealing where acoustic properties are required
- Perimeter sealing around window and door frames
- Sealing of penetrations in walls or floors
- Brick work, ceramics, stone, granite & marble
- Sanitary applications
- Other substrates including, anodised aluminium, steel, glass, dry timbers, some tiles, treated wood, PVC and plastics

(Always test adhesion to substrate before starting project)

ADVANTAGES / FEATURES

- Remains elastic after curing and is very sustainable
- Highly flexible
- Low emissions
- Good adhesion on both porous and non-porous substrates.
- Excellent durability.
- Good weathering resistance, colour stability and UV resistance
- Suitable for use on moist surfaces
- Good extrudability
- No odour
- Paintable – see notes.
- Colourfast – Non staining
- Completely neutral, contains no solvents, isocyanates, acids, halogens and toxic components
- Does not support fungal growth.
- Does not bubble on damp concrete.
- Environmentally friendly.

CLEANING/ SUBSTRATE PREPARATION

All substrates should be clean, sound, dry, dust, wax, oil and grease free. Any loose particles should be removed prior to application. If necessary, rub down metal surfaces beforehand. Clean the substrates after rubbing down. Allow the substrate to dry after cleaning /degreasing. Most metal surfaces can be cleaned by IPA or MEK. Aftek Flex-Pro MS has excellent adhesion to most common substrates: all usual building substrates, natural stone, treated wood, PVC, Plastics.



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Masonry/Brick/Concrete: Any loose particles or laitance should be removed by hand or mechanical wire brush followed by blowing down with oil free compressed air. Use Aftek cementitious or epoxy mortars / coatings to repair any damaged joints.

Metals: Surfaces must be free of rust, scale or oxide films and should clean the substrate with, methyl ethyl ketone (MEK), acetone or grease remover. Apply Aftek Primer PU if necessary.

Check the compatibility of the solvent used with the substrates. When using solvents, extinguish all sources of ignition and carefully follow the safety and handling instructions given by the manufacturer or supplier.

Plastics: Aftek Flex-Pro MS has good adhesion on plastics, polystyrene, PVC, ABS, Polyamide, PMMA, fibreglass reinforced epoxy and polyester. All releasing agents, processing oils and other protective agents should be removed prior to bonding.

NOTICE: Bonding plastics like PMMA and polycarbonate in stress loading applications can give rise to stress cracking and crazing in these substrates. Aftek Flex-Pro MS is not recommended in these applications. There is no adhesion on PE, PP, PTFE and bituminous substrates. We always recommend preliminary compatibility tests.

APPLICATION INSTRUCTIONS

Apply at a minimum temperature of +5°C to +35°C Aftek Flex-Pro MS can be applied by means of a hand or air operated cartridge or sausage gun. When tooling the Aftek Flex-Pro MS ensure a concave finish. (For easier use we recommend the material is stored between +10°C and < +40°C prior to use.)

If primers are used on joints, (which is generally applied after backer rods are in place) must not exceeded the open time and it must be thoroughly dry, otherwise in conditions of rising temperatures trapped solvent can blow bubbles in the uncured sealant.

Some porous substrates must have their porous area surfaces thoroughly sealed to avoid the possibility of air bubbles being trapped in the uncured sealant if the substrate temperature rises quickly.

Extrude the Aftek Flex- Pro MS into the joint ensuring that no air is trapped in the joint. Wide joints will require more than one pass of the application gun to make sure that sealant is in full contact with the sides and bottom of the joint.

Avoid 3 sided adhesion, where there is a potential for 3 sided adhesion use bond breaker tape or backer rod.

For best performance the depth of the joint should be half the width for joints greater than 10mm.

Tooling-off the sealant will assist by forcing the sealant into the joint against its sides and back up material, this will also break any air bubbles and expose any air pockets. Finally tooling of the joint surface can be done effectively with a tooling of spatula.

When masking tape is used for neatness make sure the tape is removed from sides of joints before the sealant starts to skin over or cures.

Always allow sufficient surface exposed to moisture. In conditions of low atmospheric humidity, it is advisable to spray the surface with a fine mist of water to promote early skinning once joint is finished.

PRIMING

Priming is not always required for normal substrates. For porous substrates and application requiring total immersion the substrate should be primed with Aftek Primer PU. For further assistance please contact our Aftek Technical Service Department.

Generally FLEX-PRO MS will provide excellent adhesion to a wide range of building materials, where adhesion is critical it is recommended that testing be conducted prior to commencing the project.



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TYPICAL PROPERTIES	
Appearance	Paste
Sag	0mm
Hardness	32 Shore A
100% Modulus	0.45MPa
Tensile Strength	1.2MPa
Elongation	400%
Shelf Life	12 months
Density	1.49g/cc
Skin Time @ 23°C, 50%RH	Approx 30mins
Curing Time 5mm depth @ 5°C, 50%RH	5 days
Curing Time 5mm depth @ 23°C, 50%RH	3mm/24hrs
Adhesion failure style	100%CF
100% extension adhesion	No failure
100% extension adhesion after immersion in water	No failure
Cold pressing cycle Adhesion	No failure
Tension compression cycle adhesion	No failure
Elastic recovery	60%
Movement	20HM-25HM
Service Temperature	-50°C to 120°C
Application Temperature	5°C to 35°C
UV Resistance	No change (dry UV 300w 25cm distance to specimen 6 weeks test)
Shrinkage	<1.5% (ISO0563)

PRECAUTIONS / LIMITATIONS

- Not suitable for bonding aquariums.
- Any material containing bitumen.
- Aftek Flex-Pro MS can be painted using water based systems, however due to the number of paints and variants available we always recommend a compatibility test prior to application.
- To cement based substrates within 28 days of initial pour or set.
- At temperatures below +5°C or above + 35°C.
- Aftek Flex-Pro MS cannot be used as a glazing sealant
- Aftek Flex-Pro MS can be applied to a wide variety of substrates, due to the fact that specific substances such as plastics, eg polycarbonate, etc, may differ per manufacturer – we always recommend a preliminary compatibility test.
- For best results use opened sausage the same day otherwise sealant in the nozzle will cure and have to be removed.
- When applying sealant, make sure not to spill any sealant on surface materials.
- In some cases sealant can be stained by interaction with other components used in the structure and finishes. (Test is always recommend first)
- For specific chemical resistance please contact our Aftek Technical Service Department.
- Conduct a simple paint test first for compatibility.
- Aftek Flex-Pro MS can be used for adhering of and sealing on natural stone
- For porous substrate use Aftek Primer PU.
- For application where Aftek Flex-Pro MS will be constantly immersed use Aftek Primer PU.
- Avoid exposure to high levels of chlorine
- Do not use on bituminous surfaces
- Not suitable for swimming pools or hot tubs
- Will not adhere to polypropylene, polyethylene or polycarbonate.

MAX JOINT WIDTH	30mm
MIN JOINT WIDTH	5mm



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PAINTABILITY

Aftek Flex-Pro MS can be painted after fully cured with water based systems. Some coatings may crack or craze as a direct result of the environmental cyclical movement. It is always recommended to conduct field tests to ensure compatibility with the desired coating.

PACKAGING

Available in 600ml Sausages

Prod code:

620620 – FLEX PRO MS GREY 600ml

620621 – FLEX PRO MS BLACK 600ml

620622 – FLEX PRO MS WHITE 600ml

Always check with Aftek Australia Technical department to confirm any questions relating to limitations / precautions before using product. Aftek Australia always recommends substrate and product testing prior to using on any project.

STORAGE / SHELF LIFE.

Store sealant in original unopened sausage / cartridges in a dry location, temperature should not exceed 30°C for prolonged periods or lower than +10°C. Shelf life of product is 24 months from date of manufacturing.

HEALTH AND SAFETY

Not classified as hazardous, Read the material safety data sheet before use.

FIRST AID: In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766).

READ THE SAFETY DATA SHEET BEFORE USING THIS PRODUCT FOR ADDITIONAL SAFETY INFORMATION.

TECHNICAL SUPPORT

Aftek manufactures and supplies a comprehensive range of high quality, high performance construction & industrial products. In addition, Aftek Australia offers technical support and on-site advice to architects, engineers, trades people, contractors and end users.

Co-operative testing program is offered for major projects, including warranties.

Please contact your Aftek sales representative or Aftek Head Office for this service

ALLIED PRODUCTS

Aftek manufactures and supplies a broad range of products under the Aftek brand, which are used in the construction industry, industrial and OEM manufacturing, including:

Grouts

Coatings

Admixtures

Adhesives

Sealants –Silicones / PU's / Acrylic's / Butyl

Floor Toppings

Floor Levelling Compounds

Concrete Repair

Concrete Curing

Product:	Flex-Pro MS
Issue Date:	OCT 2018
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The information and any recommendations relating to the application and end-use of all IAFTEK products are provided in good faith based on AFTEK's knowledge and experience of the products. In applications, the differences in materials, and variances of substrates and actual site conditions can vary such that no warranty in respect of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be taken as inferred either from this information, or from any written recommendations, or from any other advice offered by AFTEK. The proprietary rights of third parties must be observed. All orders are accepted subject to our sale terms and conditions. All users should always refer to the most recent and up to date issue of the Technical Data Sheet for the product concerned, which is available on request. It is recommended that products should always be properly stored, handled and applied under tested and recommended conditions. PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.