# Aldridge HPM-SMP

## FLEXIBLE MULTI PURPOSE HYBRID POLYMER SEALANT

**DESCRIPTION**

**Aldridge HPM-SMP** is a one-component sealant based on polymer hybrid technology, which is a 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.

**Aldridge HPM-SMP** 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, aluminium, 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**

**Aldridge HPM-SMP** is designed for use on:

- Sealing/bonding in the building & construction industry
-Suitable for use as a bond breaker, for all Aldridge 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. **Aldridge HPM-SMP** 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..
**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 Primer 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: Aldridge HPM-SMP** 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. **Aldridge HPM-SMP** 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
**Aldridge HPM-SMP** can be applied by means of a hand or air operate **Aldridge HPM-SMP** d cartridge or sausage gun. When tooling the **Aldridge HPM-SMP** 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 **Aldridge HPM-SMP** 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. Final 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
**Generally, Aldridge HPM-SMP 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.**

# Aldridge HPM-SMP

| TYPICAL PROPERTIES | |
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| **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) |

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| **MAX JOINT WIDTH** | **30mm** |
| **MIN JOINT WIDTH** | **5mm** |

**PRECAUTIONS / LIMITATIONS**

- Not suitable for bonding aquariums.
- Any material containing bitumen.
- **Aldridge HPM-SMP** 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.
- **Aldridge HPM-SMP** cannot be used as a glazing sealant
- **Aldridge HPM-SMP** 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)
- Conduct a simple paint test first for compatibility.
- **Aldridge HPM-SMP** can be used for adhering of and sealing on natural stone
- For application where **Aldridge HPM-SMP** will be constantly immersed a primer may be required.
- 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.

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**PAINTABILITY**
**Aldridge HPM-SMP** 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
:
– **Aldridge HPM-SMP** available in 600ml

**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.**

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