Revised January 2026

Technical Data Sheet

PU15 Polyurethane Sealant

Low Modulus Elastomeric Polyurethane Sealant

Description

Ideal for movement and connection joints on most substrates, for indoor and outdoor sealing applications.

Adheseal PU15 is a most preferred sealant for window fixing in fenestration details. It is tough, durable, highly flexible, mould resistant and has exceptional adhesive capabilities.

With its high elasticity, PU15 can accommodate movement up to 25% of the original joint width. It is particularly easy to apply and smooth, curing to form a permanently elastic and dustproof joint seal between different elements in the construction, mechanical engineering, shipbuilding, vehicle, manufacturing, etc industries.

Uses:

- PU15 is designed to seal mechanically fixed joints that are found in fenestration details.
- Perimeter sealing of windows.
- Curtain walls
- Expansion joints in precast / tilt-up panels
- Metal cladding
- Adhesive for lightweight components
- General construction sealant
- Most common construction materials: metal, wood, concrete
- Acoustic ceiling tiles
- Seam sealing
- Aluminium fabrication, Bolted lap joints
- Sealing materials of different thermal exposure coefficients
- Fibreglass
- Display signs.
- Vehicular and marine manufacturing.
- Sealant for concrete and masonry facades.

Benefits:

- Paintable with acrylic, oil, and rubber-based paints (confirm adhesion; non-flexible paint may crack)
- Tear resistant.
- Excellent adhesion to most common building materials, including powder coat (preliminary tests suggested)
- Movement capability of ± 25 (ASTM C 719)
- Good weathering and water resistance
- Non-corrosive
- Proven long-term durability and resilience.
- Ready to use – single pack.
- Non-toxic, low VOC meets “green star” environmental criteria.
- Compatible and exceptional adhesion with all common building materials: High permanent flexibility
- Suitable for internal & external applications
- Resists mould & mildew in hot and humid environments
- Maintains a waterproof flexible joint.
- Low odour
- Noncorrosive to most surfaces, including galvanized/zinc-coated steel and concrete.

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Acceptable Substrates

- Masonry, Brick
- Most Metals Inc. Stainless Steel, Aluminium, Galvanized surfaces (except lead & copper)
- Timber, Plastics
- Stone
- Painted surfaces
- Rubber
- Fibreglass, Porcelain
- Powder coat
- Waterproof membranes.

Before use, a preliminary adhesion test is suggested. For a more comprehensive list, see Primer Selection Chart.

Limitations.

Adheseal PU15 is NOT suitable for use in the following applications:

- Not suitable for long-term water immersion.
- Not suitable for internal swimming pool applications. Avoid exposure to high levels of chlorine. (Maximum level is 5ppm).
- Totally confined spaces; as the sealant requires atmospheric humidity to cure, it will not cure where it does not have access to atmospheric humidity.
- Aquariums
- Adhering mirrors (Hi-Power/MS609 can be used - test first)
- Structural glazing (N-80 or N-60 glazing sealant)
- Composite panels (Adheseal recommends Hi-Flex Construction, subject to test first)
- Some stone (we recommend the completion of a stain testing program before using any sealant on stone).
- Sealant may discolour copper & brass.
- Do not expose the sealant to materials containing cleaning agents, solvents and alcohol that may affect or discolour the sealant, particularly during product curing.
- Not to be used on bituminous, natural rubber, EPDM rubber surfaces or in conjunction with any compound that might leach oils, plasticisers or solvents.
- Avoid applying when moisture-vapour-transmission is emanating from the substrate, and if air-entrapment can occur, as this may cause bubbling.

Application

Surface preparation:

All surfaces must be structurally sound, stable, dry, clean, and free of dust, loose, flaking, friable material and free from oils, grease, form release agents, curing compounds, and any other surface contamination that may hinder adhesion. Substrate must be free from surface water and continual dampness. Concrete must be allowed to cure for at least 28 days. Failure to do so may result in mould growth, poor adhesion and subsequent delamination. Use the two-wipe process for impervious substrates. Ensure the cloths are clean and moistened with a suitable cleaner/solvent such as Acetone or 100% White Spirits and changed frequently. To achieve a neater finish and to avoid getting excessive sealant on the tiles or stone, mask joint edges.

Priming: Adhesion test is recommended. Where the use of Primer is necessary, it must be applied with a small brush onto the appropriate areas of the joints and left to dry for several minutes to allow the solvent to evaporate, 50A for non-porous & Everflex Supaprime for porous substrates.

Non-porous substrates: Aluminium, waterproof membranes, anodized aluminium, stainless steel, PVC, galvanized steel, powder-coated metals or glazed tiles; slightly roughen the surface with a fine abrasive pad. Clean and pre-treat using Adheseal 50A surface prep applied with a clean cloth. Once primed, allow no less than 30 minutes and no longer than 2 hours before applying the sealant/adhesive. For metals, such as copper, brass and titanium-zinc and plastics such as PVC, an adhesion test is advised.

Porous substrates: Concrete, aerated concrete and cement-based renders, mortars and bricks: prime surface using Everflex Supaprime applied by brush. Once primed, allow no less than 30 minutes and no longer than 2 hours before applying the sealant/adhesive. For more detailed advice and instructions, contact Adheseal Technical Services.

Note: primers are adhesion promoters and not an alternative to poor preparation/cleaning of the joint surfaces.

Primers also improve the long-term adhesion performance of the sealed joint. Avoid excessive application of primer as this can cause puddles at the base of the joint.

An adhesion test is always recommended; refer to the Adheseal primer selection chart.

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Sealant Joint Design:

Where possible, the sealant should be at a 2:1 ratio (width:depth), Diagrams A & C. For internal joints, the width and the depth of the joint should be a minimum of 5mm, and for external joints, 10mm. Maximum joint width is 30mm and depth 15mm. For joints greater than 10mm deep, a backing rod should be used. Use a backing rod 25% larger than the joint width to control the depth of the joint where required. The sealant should only be fixed to two surfaces to allow movement. Hence, on flat joints, use a polyethylene tape or release agent to prevent a 3-sided adhesion of the sealant, Diagram B.

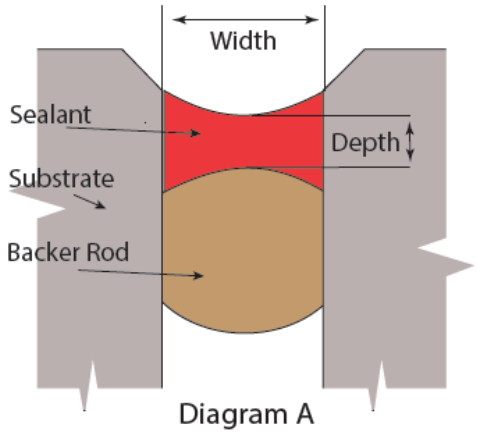


Diagram A

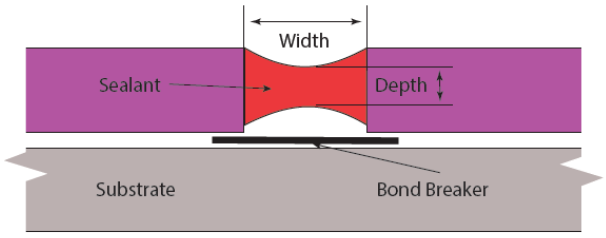
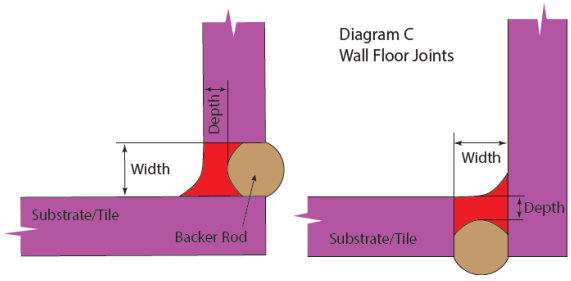


Diagram B



Width	Depth
5-10mm	As the width min 5mm
10mm	5-8mm
15mm	7-10mm
20mm	10mm
25mm	12mm

PU15 Installation:

Apply at a temperature between 5°C and 40 °C.

To apply PU15 as a sealant: Cut the nozzle at a 45º angle to the desired thickness. Cut the opening in the Foil Sausage. Insert the Foil Sausage into the caulking gun and fix the nozzle. Hold the gun at a 45º angle with the nozzle in contact with both sides of the joint. Apply by pushing sealant ahead of the nozzle, thus ensuring sealant is being pushed firmly into place, in a steady, continuous motion, ensuring good contact with both sides of the joint to achieve optimum adhesion.

To apply PU15 as an adhesive: cut the nozzle at a 90º angle to the width of the desired bead, then cut a wedge in the nozzle twice the height of the width of the bead. Cut an opening in the foil sausage. Insert the foil sausage and nozzle into the caulking gun. Hold the gun at a 90º angle with the nozzle flat on the surface. Dispense the sealant following the nozzle, thus ensuring the sealant is standing in place, in a steady, continuous triangular bead. Bring the two surfaces together, compressing the triangular bead to no less than 2mm, ensuring good contact with both sides of the joint to achieve the required adhesion. Diagram D.

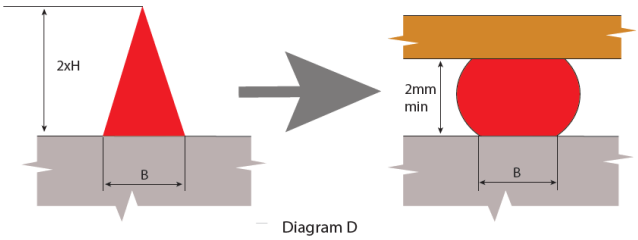


Diagram D

Tool off with a moistened spatula to finish the joint smoothly before the skin forms, approximately 15 minutes. While the sealant is still wet, clean off any excess. If joint edges have been masked, remove tape whilst the sealant is still wet. If the sealant has dried on the surface, clean with white spirit solvent to soften the sealant, then scrape off with a blade. The incompatibility of some substrates may cause discolouration of the sealant, poor sealant adhesion or long-term degradation of the sealant. Always carry out compatibility tests where contact with potentially incompatible materials may occur.

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Coverage

Coverage will vary according to joint width and depth, as well as the type and method of application. The figures below can be used as a guide for:

Adheseal Sealant Calculator					
Joint Size mm			M per ctg	M Per ssg	M per Lt
6	X	6	8.3	16.7	27.78
10	X	6	5.0	10.0	16.67
10	X	10	3.0	6.0	10.00
12	X	12	2.1	4.2	6.94
15	X	8	2.5	5.0	8.33
15	X	15	1.3	2.7	4.44
20	X	10	1.5	3.0	5.00
20	X	20	0.8	1.5	2.50
25	X	12	1.0	2.0	3.33

Triangular Joint Beads	
Joint Size mm Width x Height	Lm Per Sausage
5x5mm	50
10x10mm	12
10x15mm	6
10x20mm	3

Cure Time.

Allow approximately 120 minutes skin time, cure time 2mm per day at 25 °C & 50% humidity. Please note that all cure times vary depending on atmospheric conditions and porosity of the substrate.

Clean Up.

While the product is still wet, tools and spills can be cleaned with Xylene. The cured product can be removed by mechanical means.

For cleaning skin, use Adheseal Hand Wipes.

Packaging

600 ml Foil Sausage, in cartons of 20.

Colours

White (9003) PU15CWH/SSG
Concrete Grey (7047) PU15CGR/SSG
Black (9011) PU15CBL/SSG
Number in brackets indicates closest RAL colour.

Physical Properties	
Type of product	Polyurethane
Curing system	Moisture
Cure Time	3mm / 24Hours
Density (specific gravity)	Black:1.16. Others 1.18±0.02
Shore A Hardness	15 after 14 days
Joint Movement Capability	+/- 30%
Tear Strength (ISO 34)	5.5N/mm
Elongation to break ISO 37	>600%
Modulus Elongation ISO 37	0.2 MPa @ 100%
Application temperature	+5°C to +35°C
Service Temp	-40ºC to +80ºC
Working Time	25m @ 23ºC & 50% RH
Skinning Time	60m @ 23ºC & 50% RH
VOC European 2004/42/CE	95 gm/lt.
Shelf life	12 months in original packaging
Storage: Cool Dry between	10ºC and 35ºC
UV Resistance 500h	Good
Chemical Resistance	Excellent for water, detergent solutions, moderately diluted acids & alkalis, petrol & oil for short periods.
Sealant Classification as per ISO 11600	Type F Class 25 LM
Accelerated testing for UV & Weathering Tested beyond ASTM C793-05, ISO11431 & ISO EN 14187-8	No chalking, no cracks Yellowing
Fire test AS/NZ 3837	Intumesced for a few seconds at 60kW/m^2 exposure.
VOC European 2004/42/CE	95 gm/lt
Colours	Black, White & Grey
Packaging	600ml Sausages

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Note: Before application, refer to all relevant TDS's and SDS's detailed product specifications & application instructions.

Adheseal B.A.T. Program (Bond Adhesion Testing) Program.

For over 15 years, Adheseal has offered a service in which a program has been established to help eliminate potential site problems by pre-testing Adheseal sealants and adhesives with most building materials to which our Sealants and adhesives are applied.

This service is available for projects where pre-installation testing of our products will aid in determining the best application methodology to achieve optimum adhesion. Contact your Adheseal representative for further information.

Specification: The information contained in this TDS is typical but does not constitute a full specification, as conditions and specific requirements may vary from project to project. The instructions should be considered as a minimum requirement. The applicator or contractor must use their skill, knowledge, and experience to carry out additional works as may be necessary to meet the requirements of the project. Specifications for specific projects should be sought from the company in writing.

Conditions Of Use and Disclaimer:
The information contained in this TDS is given in good faith based upon our current knowledge and does not imply warranty, express or implied. The information is provided, and the product is sold on the basis that the product is used for its intended purpose and is used in a proper workman-like manner in accordance with the instructions of the TDS in suitable and safe working conditions. Under no circumstances will the Company be liable for loss, consequential or otherwise, arising from the use of the product.

Health and Safety

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).
Inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness, place patient stably inside position for transportation
Skin Contact: Immediately wash with water and soap and rinse thoroughly.
Eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
Ingestion: If swallowed, do not induce vomiting. Seek medical advice.
PPE for First Aiders: Wear gloves, apron, safety glasses, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from Nitrile Rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.
Notes to physician: Treat symptomatically. Effects may be delayed. Treat symptomatically

DANGER

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