

Sx-100

HYBRID TECHNOLOGY SEALANT / ADHESIVE



Sx-100 is a high performance sealant and adhesive based on Hybrid technology. Sealex Sx-100, having only 2% VOC, is a green sealant suitable for all green building designs. All Sealex Hybrid range of products has excellent weathering capability and high resistance to ultraviolet and does not shrink nor bubble and swell.

As it does not contain any oil nor solvent, Sealex Hybrid does not attract dirt particles and does not stain any substrates and at the same time is paintable.

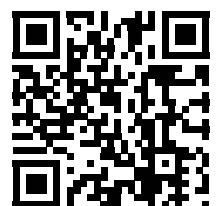
- Green building standard requirement
- Very low VOC 2% achieved green standard
- For both external and internal application
- Isocyanate free and silicone free
- Watertight and weatherproof
- Solvent free and odorless
- Minimal dirt pick up
- Stain free
- Paintable
- Customize colour possible



PSB Singapore

GREEN STANDARDS

- * LEED 2009 for New Construction and Major Renovations: Low Emitting Materials (Section 4.1), SCAQMD rule 1168 (2005)
- * ASTM D 2369 EPA Method 24 VOC content 15g/l or 1%



SCAN QR CODE
FOR INFORMATION

Features

Benefits

Excellent adhesion to most substrates	Versatile and flexible in applications.
Isocyanate and solvent free	Safe to users and owners especially interior applications. Green & environmentally friendly.
Low VOC	Less than 2%. Approved for all confined application.
Odorless (Safe to human)	Work in comfort. Live in comfort.
Excellent weather & UV resistance	Shows no cracking, splitting or adhesion failure after long term desert test. 10 years service life expectancy.
Non gassing, bubbling or foaming	Provide a strong solid long life seal
Quick cure	Increase productivity. Cleaner work space.
Stain-free (Non-migration)	Excellent stain resistant when applied to porous substrates.
Minimal dirt pickup (Silicone free)	Non-bleeding throughout the life span of the product resulting in clean joint.
Excellent paintability	Paintable even with water based paints.
One part system and primerless	Versatile and easy to apply and adhere even to wet surfaces.
High strength	High tensile and shear strength provides a strong joint.

Applications

- Precast concrete joint
- Stone & metal facade
- Steel pre-engineered building
- Expansion joint
- Door and window frame

* not applicable for structural glazing

Conformance

- Sealex Sx-100 complies to ASTM C920, Type S, Grade NS, Class 25
- Singapore PSB for HDB

Technical Specification

Basic Material	Hybrid Sealant
Color	Basic / Light Grey
Odor	Odorless
Specific Gravity	1.3 - 1.5
Viscosity	300-500 Pa.s (10 rpm, at 26°)
Tack Free Time	20-30 min (23°C, 50% RH)
Application Temperature	5°C to 40°C
Service Temperature Range	-30°C to 90°C
Tensile Strength	1.2 MPa (ASTM D412 DIE A)
Elongation To Break	>500% (ASTM D412 DIE A)
Shelf Life	12 Month
Movement Capability	±25%

Size of Packaging & Accessory




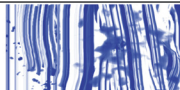
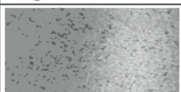



Sx-100 Comparison to PU and Silicone

PAINTABLE

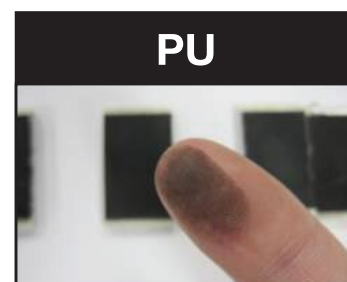
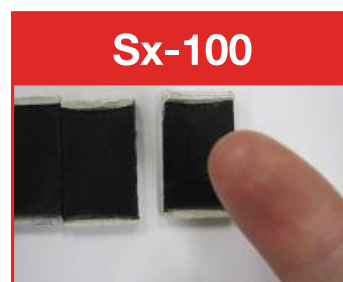
Sx-100 offers excellent paintability for all paints and colours compared to all sealants.

WATER BASE ACRYLIC PAINT

SEALANT	A	B
Sx-100		
Silicone		
Polyurethane		

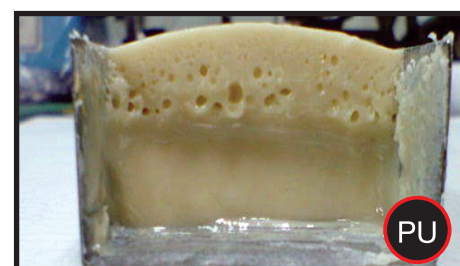
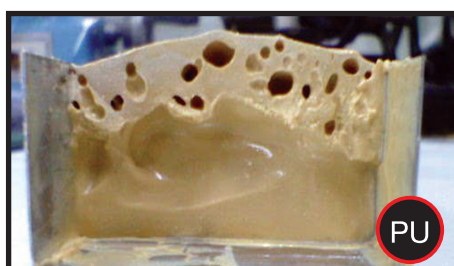
WEATHERABILITY

No degradation and change in colour after 2000 hrs exposure to UV, irradiation and water. PU shows signs of degradation and colour change after only 1000 hrs exposure.



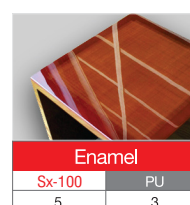
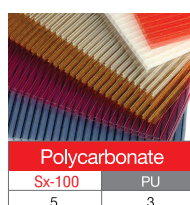
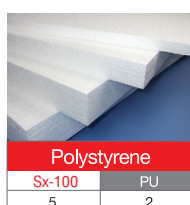
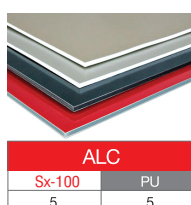
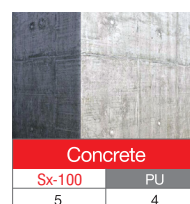
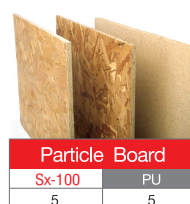
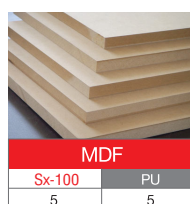
NO BUBBLE, NO FOAM, NO HOLLOW, NON-SHRINKAGE

Sx-100 when cured remains flexible but provides a solid seal and excellent adhesion without any bubble, gassing and shrinkage compared to PU



EXCELLENT ADHESION

With excellent adhesion properties Sx-100 is the most versatile adhesive sealant available compared to PU and other solvent based products.



TECHNICAL SUBMITTAL

Compliance Table

TEST	Sx-100	Polyurethane (PU)	Silicone	TEST
Non-hazardous, safe to human and environment	10	5	9	Unlike PU, Sx-100 does not contain any isocyanate and solvent which are hazardous to health and environment.
Non-Dirt Pickup	10	8	5	Sx-100 does not bleed throughout its life span and does not attract dirt. This property prevents dirt streaking on aluminium composite panels and curtain walls.
Stain Resistance	8	7	5	Due to its non-bleeding property, Sx-100 does not stain the substrates especially marble, granite and other porous material.
Weatherability	9	6	10	Sx-100 displays excellent weather resistance.
Non-bubbling and foaming	10	6	10	This provides a very strong, long live and solid seal and adhesion
Adhesion Versatility	10	5	8	Sx-100 can be used with most substrates and displays the strongest adhesion.
Paintability with water-based paints	10	8	3	When painted it is able to blend well with its environment.
Fast Curing	10	7	10	Increases productivity and also prevents messy working environment when accidentally touched.
Storage Stability	7	7	9	When stored properly and protected from moisture, Sx-100 has an excellent shelf-life.

Compliance

TEST RESULTS OF ASTM C920 BY TUV SUD.

TEST	'Sealex Sx-100'	ASTM C920 : 2008 Standard Specification For Elastomeric Joint Sealants
1. Staining And Colour Change ASTM C501:2005	No Staining and no colour change	The sealant shall not cause any visible staining on the top surface of a white cement mortar base
2. Extrudability ASTM C1183	>10 ml/mi	Type S (single component), grade NS (non-sag or gunnable sealant) shall have an extrusion rate time of not <10 ml/min
3. Rheological (Flow) Properties ASTM C639:2007	Vertical displacement: 0 mm sag Horizontal displacement : No deformation	Grade NS (non-sag) or gunnable sealant shall have flow characteristics such that it does not sag >4.8 mm in vertical displacement and shall show no deformation in horizontal displacement (refers to Types II and IV sealants)
4. Indentation Hardness Test piece 1, average Test piece 2, average ASTM C661:2006	28 28	T (traffic) sealant shall have a hardness reading of not <25 or >50 after being properly cured NT (non-traffic) sealant shall have a hardness reading of not <15 or >50 after being properly cured
5. Adhesion & Cohesion Under Cyclic Movement, Class 25 ASTM C719:2005	No bond failure	The total loss in bond and cohesion areas among the three specimens tested for each surface shall not be >9 cm 2 with mortar substrates
6. Effects Of Heat Ageing On Weight Loss, Cracking And Chalking, average ASTM C1246:2006	0.9% No Cracks after UV exposure and bend test	The sealant shall not lose >7% of its original weight or show any cracking and chalking
7. Effects Of Accelerated Weathering ASTM C793:2005	No cracks after UV exposure and bend test	The sealant shall show no cracks after the specified UV exposure and shall show no cracks after exposure at cold temperature and the bend test
8. Adhesion-In-Peel, average ASTM C794:2006	235.6 N (53.1 lbf) cohesive failure within the sealant and no adhesive bond loss between sealant and substrate for each test piece	The peel strength for each individual test shall not be <22.2 N (5 lbf) and the sealant shall show no >25% adhesive bond loss for each individual test
9. Material Identification/ Verification By FTIR	Polymer based material (refer to Figure 1)	-
10. a. Maximum Tensile Strength, average b. Modulus Of Elasticity, average ASTM C1135:2005	0.7 N/mm ² 0.9 N/mm ²	-

LIMITED WARRANTY

The information contained in this document offered in good faith is believed to be accurate. However, as it is beyond our control on the conditions and methods of use of our products by our clients the information contained in this document should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end application.

Sealex warranties that all sealex products meet the specifications herewith at the time of shipment. In the event of breach of such warranty Sealex is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

Do not apply Hybrid Sealant onto protective film. Plasticizers contained in these materials penetrate the film and may cause gloss change on the coating.

Sealex®
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inno-cons

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LEED 2009 (Section 4.1)



	Solid content % mass	Water content, % mass	Exempt compounds, % mass	VOC Less water less exempt compounds, g/l	VOC limit g/l
Sealex Sx 100	99.2	0	0	15	250*

* VOC Limit for "Architectural sealants"