Sarnafil®

BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET
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Sarnacol LRA

High Strength, Two-Component, Low-Rise Polyurethane Foam Adhesive for Bonding Insulation Board to Roof Substrates

Description

Sarnacol LRA is a high quality, widely compatible adhesive for a variety of insulation board stocks which require bonding to roofing substrates prior to the installation of Sika® Sarnafil® membranes. It is supplied for manual or machine application, mixes in static mixing nozzles used for dispensing the material and is fast-acting in its rate of cure. The low-rise adhesive will attach most insulation types to a variety of roof deck substrates and is suitable for multiple insulation layers also.

Sarnacol LRA is a fully integrated component of Sika® Sarnafil® insulated roofing systems and performs to the high standards associated with Sika.

Where To Use

- New build and renovation of low-slope roofs
- Difficult- to-access areas, drainage and tapering 'crickets' and smaller roofs.
- Suitable for large-scale insulated roofs

Advantages

- Easy and quick to apply for high productivity and reduced installation times.
- Odour and noise-free installation eliminates disturbance to building occupants.
- Compatible with many insulation board stocks and common roofing substrates.
- Fast chemical cure which is not reliant upon external elements to react.
- Allows insulation / cover boards to be walked into place without need for weights.
- Provides durable adhesion of boards, even in multiple layers.
- Super-low VOC content contributing to LEED® Canada credits.
- Wind uplift resistance rating in accordance with CSA.123.21-14

Technical Data

Packaging	1500 mL (50 US fl. oz) cartridges/4 per case 37.8 L (10 US gal.) bags-in-boxes
Colour	Yellow/green
Yield	1 - 1.5 squares per 1500 mL (50 US fl.oz) cartridge 1 - 2 squares per 3.78 L (1 US gal.) *Application rates may vary significantly depending upon porosity/absorption and roughness of the substrate.*
Shelf Life	18 months in unopened, undamaged and sealed original packaging, Store in dry conditions at temperatures between 12 - 29 °C(55 - 85 °F). Protect from freezing. If frozen, discard product. Condition product to at least 22 °C (72 °F) before use for optimum ease of installation and performance.
Application Temperature	4.5 °C (40°FC) and rising, minimum ambient & substrate

Properties at 23 °C (73 °F) and 50% R.H.

Density ASTM D1622	A = 1.016 g/mL B = 1.24 g/mL 3.67 b/cf
Compressive Strength ASTM D1621	0.25 MPa (36 psi)
Tensile Strength ASTM D1623	0.27 MPa(40 psi)
Water Absorption ASTM D2842	5.05 %
Open Time	4 -14 min (conditions dependent)
Time to Maximum Foam	3 - 4 min
VOC Content (blended material)	< 5 g/L

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

How To Use

Surface Preparation

The surface to which Sarnacol LRA is to be installed must be sound, clean, dry and free from all surface contaminants.

All loose particles, dirt, dust, release agents, laitance, oils or greases, paint, rust, and other poorly adhering materials must be removed by suitable manual or mechanical preparation.

All phenolic materials, including existing insulation, must be removed along with any existing polyurethane foam.

All non-ferrous metals, including stainless steel, aluminium and copper should be suitably primed, ie epoxy or wash primer (contact Sika Canada for guidance). Otherwise, Sarnacol LRA adheres to clean and dry metal without pre-treatment or primer.

Any existing roofing material must be evaluated for its soundness and stability. Where defects exist or the adhesion of the underlying roofing material is called into question the adhesive must not be applied until suitable repairs or remedial measure have been undertaken.

The substrates to which Sarnacol LRA is proven compatible include but are not limited to: structural and lightweight concrete, gypsum, cementitious planks, steel (22 gauge or thicker), plywood (15 mm [5/8 in] thick minimum),smooth built up roofing (BUR), smooth and granular surface modified bitumen, sprayed in-situ polyurethane foam, base sheeting, and most vapour barriers (asphaltic & fleece-lined).

The roof insulation and cover boards which Sarnacol LRA is proven to bond include but are not limited to: expanded polystyrene, polyisocyanurate, select extruded polystyrene and certain branded products such as DensDeck®, Perlite and Securock®.

The maximum size of insulation or cover boards per sheet, other than polyisocyanurate, must be 1.2 m (4 ft) x 2.4 m (8 ft). The maximum size per sheet of polyisocyanurate boards must be 1.2 m (4 ft) x 1.2 m (4 ft).

The need to bond to unfamiliar substrates using unknown insulation /cover boards will require testing and assessment. Please contact Sika Canada Technical Services for guidance.

Application

Sarnacol LRA is installed by dispensing the material from either twin-piston cartridge/caulking guns or though suitable mechanical equipment. Both methods require the material to be blended in the static spiral mixers supplied.

As per standard practice, dispense material from the static mixer until an even consistency and colour is achieved. The purged material is not suitable for use and must be discarded. Only completely blended material is suitable for use.

Dispense the fluid material in continuous beads of between 18 - 25 mm (3/4 - 1 in) width at a maximum spacing of 300 mm (12 in) on centre. The material will then expand to approx. 50 mm (2 in) in width and to a height of 18 - 25 mm (3/4 - 1 in) within 3 - 4 minutes of application.

Following the conversion of the liquid into an expanding foam and whilst the adhesive is still wet and tacky, lay the insulation/cover board into position and firmly press onto the adhesive ribbons, walking into place where possible or employing suitable force to ensure complete contact.

Sarnacol LRA possesses a typical open time for bonding of insulation and cover boards of 4 -14 minutes, depending upon temperature and conditions. Ensure that the boards are installed onto the foam within that time. Should the adhesive pass its tack free state before boards have been placed, dried beads must be re,moved and the material re-applied with the securing of boards following accordingly.

Clean Up

Uncured adhesive can be removed from equipment and tools using Sika® Equipment Cleaner. Cured adhesive material can only be removed manually or mechanically. For removal of uncured adhesive material from hands and sensitive surfaces, use Sika® Hand Cleaner towels.

Limitations

- Sarnacol LRA is not suitable for application during wet weather.
- Substrates and board surfaces must be dry and clean at time of applying the adhesive and attaching the insulation/cover.
- Bond values will be compromised in the presence of adhesion inhibiting contaminants or surface treatments.
- Where multiple layers of boards are being employed, adopt a staggered joint configuration in application.
- Bond values will be governed by the stability and soundness of any existing roofing material where retrofit/recover works are being undertaken.
- Substrates exhibiting any deterioration must be examined and corrected prior to proceeding with the application of the adhesive.
- Sarnacol LRA is not recommended for deteriorated roof decks or where the structural integrity of the substrate is compromised.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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