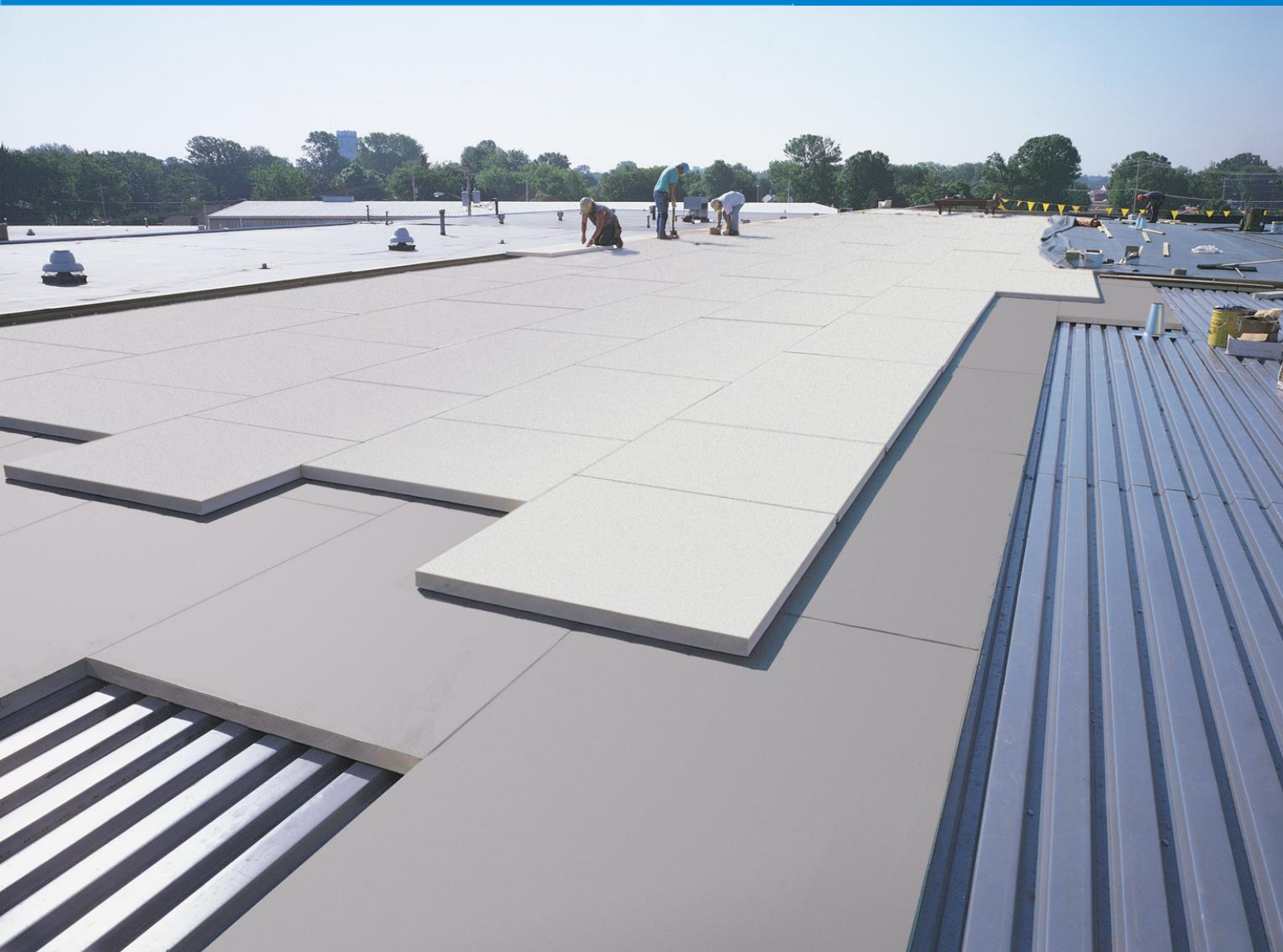




Sealco
Waterproofing Systems

WarmSEAL Insulated Roof



WARMSEAL Insulated Roofing System

PRODUCT DESCRIPTION

Sealco Waterproofing's WarmSEAL insulated warm roof system is a roof that has the insulation installed above the structure with the waterproofing membrane installed on the top of this insulation. The system is designed to keep the outer of the building insulated and "warm" from the external elements.

WARMSEAL POLYISO INSULATION

Sealco's Isolex family of polyisocyanurate ("polyiso") roof insulations offer the building owner the perfect combination of features so important for long-term performance. Aside from enhanced energy savings and the other benefits shown below, Isolex provides excellent initial installation cost as well as attractive life cycle payback rates.



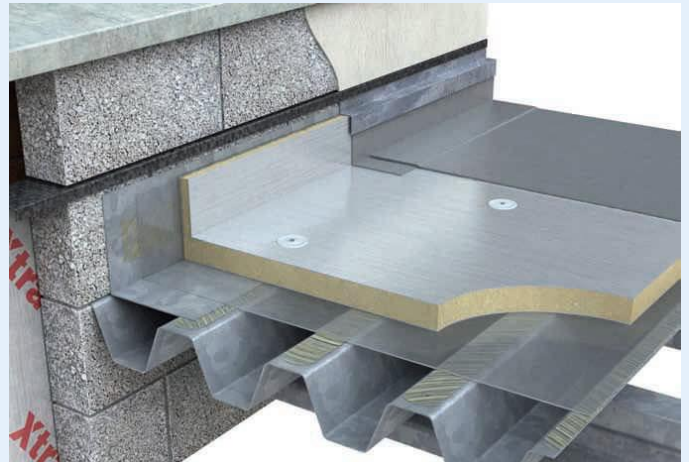
Mount Difficulty Winery, Cromwell – Warm & Garden Roof

WARMSEAL COVER BOARD PROPERTIES

	6.4mm	80mm	100mm
Nominal Thickness	12.7mm	80mm	100mm
Thermal Resistance (C-518)	R-0.70	R-3.5	R-5.0
Water Vapour Permeability (ASTM E96)	<1.5	<1.5	<1.5
Water Absorption (C-209)	<3.0%	<3.0%	<3.5%
Compressive Strength (D-1621)	620kpa (90psi)	172kpa (30psi)	172kpa (30psi)
Dimensional Stability (D-2126)	<0%	<2%	<2%
Tensile Strength (C-1289 Type II, Class 4)	>95kpa (>2000 lbs/in2)	>95kpa (>2000 lbs/in2)	>95kpa (>2000 lbs/in2)
Smoke Development (E84) Complete 10 min evaluation	60	50-170	50-170
Flame Spread (E84) Complete 10 min evaluation	40	25-50	25-50

FEATURES & BENEFITS

- **HIGH R-VALUE** - Polyiso is one of the most thermally efficient insulations on the market today. It's high R-value "per inch" means a cost effective solution for any building application.
- **DIMENSIONALLY STABLE** - With high compressive strength and dimensional rigidity, WarmSEAL panels provides a stable building panel that helps resist installation traffic, supports fastener loads and reduces thermal deck movement.
- **HIGHLY COMPATIBLE** – WarmSEAL panels may be used with virtually all types of roofing systems and is a key component of a fire resistive roof assembly.
- **ENVIRONMENTALLY FRIENDLY** - Isolex is HCFC free and has zero ozone depletion potential.
- **THE BACKING OF HISTORY** – Sealco partners with one of Canada's oldest suppliers to the commercial roofing industry. No other company can match Sealco's breadth of experience in Canadian industrial roofing.



Build-up Showing WarmSEAL & SuperROOF System

BRANZ APPRAISED MEMBRANES

The EcoTUFF® and FlameSEAL® membrane systems as used on the Sealco WarmSEAL Roof System are BRANZ appraised.

Please contact Sealco Waterproofing Systems Limited for a copy of these certificates. Certificates are also available for download from our website:

www.sealco.co.nz



Full system specifications, drawings & installation information can be viewed and downloaded from the WarmSEAL page on our website:

www.sealco.co.nz

BENEFITS OF A SEALCO WARMSEAL ROOF SYSTEM

DEW POINT

The dew point is kept to the outside of the building. This means that no moisture will form within the inside of the structure, keeping timber dry and greatly reducing the chance of mold or rot forming.

VENTING IN ROOF CAVITY

With a Sealco WarmSEAL roof system, the venting within the roof cavity is greatly reduced or can be removed altogether. Because the temperature differential is outside the building, the need for venting roof spaces is no longer a necessity.

UNIFORM INSULATION VALUE

Traditional "Cool Roof" designs incorporate insulation between rafters. Heat transfer can be lost through the rafters and framing of the structure (thermal bridging). WarmSEAL roofs evenly insulate the entire roof area without loss of heat through lower R rated materials.

REDUCED AIR CONDITIONING AND HEATING COSTS

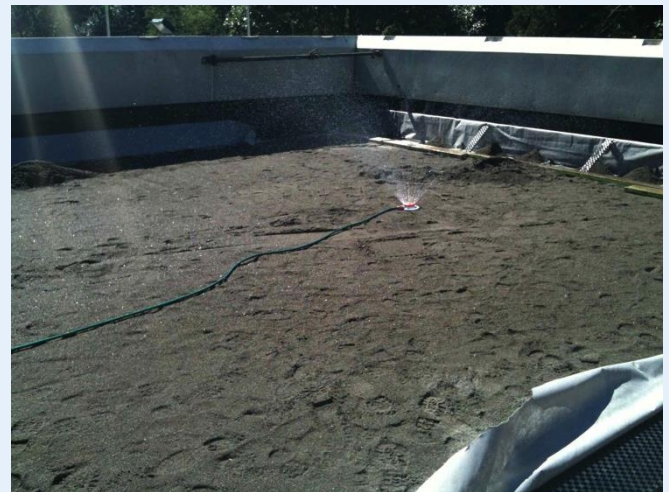
Because there is less heat loss or excessive gain, your heating and cooling costs will be greatly reduced because air conditioning units will be operating less.

LARGE SHEET REINFORCED TPO MEMBRANE

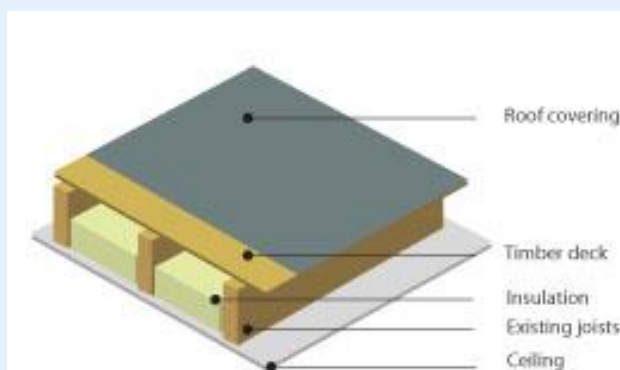
The Sealco EcoTUFF® TPO membrane is reinforced for strength and comes in a up to 3.7m wide rolls, reducing labour costs to install. The ecoTUFF® TPO is also fully thermal heat welded on all seams and details creating a fully impervious roof system.

HEALTHY INSTALLATION

The WarmSEAL insulation and the EcoTUFF® TPO membrane can be installed using water based adhesives which eliminate the need for toxic chemicals and a greener rating for your building.

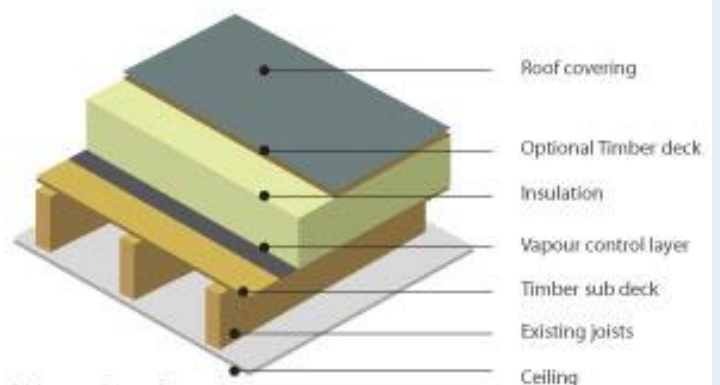


Wellington Tunnel - Warm Roof & Garden Roof Combination



Conventional Cold Roof

The flat roof insulation is located between the joists



Warm Roof

The flat roof insulation is located above the joists

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Sealco reserves the right to update this information without prior notice.

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SYSTEM COMPONENTS

ECOTUFF® TPO WATERPROOFING MEMBRANE

EcoTUFF® a high quality TPO (thermo plastic olifin) used to provide waterproofing protection for garden roof applications. The EcoTUFF® system includes the ecoTUFF® TPO membrane and EcoTUFF® contact adhesive. Also included as part of the system is the unreinforced EcoTUFF accessories, pre made corners, penetrations and cut edge sealant.

FLAMESEAL® TORCH-ON WATERPROOFING MEMBRANE

The FlameSEAL® membrane system is comprised of a full range of torch-on membranes used in a wide range of waterproofing applications. The FlameSEAL® system may be fully torched, mechanically fixed or cold-applied using a bitumen adhesive depending on the performance required.

WARMSEAL POLYISO RECOVER BOARD INSULATION

WarmSEAL Recover Board is specifically designed for use with single ply systems as well as modified bitumen or built-up roofing systems. Its primary function is to provide an improved substrate for the roofing membrane in recover applications. Panels are available in 1220mm x 2100mm panel sizes.

VAPOUR BARRIER

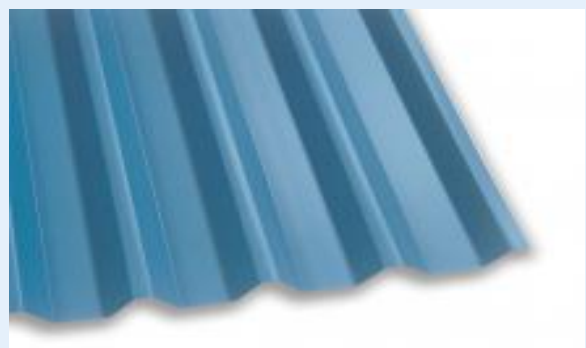
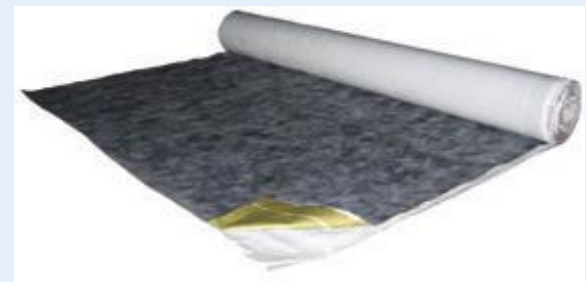
Sealco Permaste Stick is a self-adhesive vapour barrier specifically designed for urethane-based and other common insulation adhesives. The non-asphaltic adhesive layer develops an exceptional bond to a variety of roof substrates including concrete, steel and wood; even at reduced temperatures. The non-woven polyester top surface is compatible with a variety of adhesives including urethane, asphalt and an array of proprietary solvent and water-based adhesives.

STEEL TRAY SYSTEM

ST7 or ST9 is a medium rib trapezoidal profile of popular configuration. The profile of ST7 & ST9 gives a classic look to all types of work, while the higher ribs give enhanced performance compared to low rib products, allowing better purlin/ roofing design optimization on commercial projects. Available in metallic coated and pre-painted steel in .40mm and .55 BMT (base metal thickness), aluminium plain and pre-painted in .70mm and .90mm, and other non-ferrous metals.

FULL SYSTEM & WARRANTY

The Sealco WarmSEAL Roof system comes complete with approved insulation fasteners and foam adhesives to provide a full and warranted system.



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