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Technical Bulletin

Soprema Membranes and Products

ARCA Warranty Ltd. is pleased to announce that on April 27, 2005 the Board approved Technical Committee recommendations for the acceptance of the following Soprema modified bitumen membrane systems and products for issuance of the five (5) year low-slope Certificate of Assurance.

Seminars will be provided in both Edmonton and Calgary to demonstrate specific application requirements. The contractors and accepted roofing inspectors will be required to attend the sessions scheduled for June.

Please call Soprema or ARCA administration for assistance with any of the products or systems outlined in this bulletin.

1) Sopraply Membrane System

A two ply membrane system comprised of the composite reinforced SBS modified bitumen Sopraply 510 Base and Sopraply Traffic Cap 560 or Sopraply 550 fiberglass reinforced cap membranes. Membrane application is in accordance with the application standards for ARCA Warranty Ltd. accepted modified bituminous membrane systems with mopped base sheet / torched cap sheet currently outlined in the minimum requirements.

2) Colvent Membrane System

A two ply membrane system for insulated designs over steel and wood decks. The Colvent system is an engineered system comprised of a self-adhering Colvent 810 glass reinforced primary membrane base sheet uniformly adhered to Colgrip A polyisocyanurate insulation and a torch adhered Colvent 860 composite reinforced primary membrane cap sheet.

Colvent continued:

Colgrip A polyisocyanurate insulation is the only primary insulation accepted for use immediately beneath the Colvent primary membrane base sheet. Any ARCA accepted insulation can be used beneath the Colgrip A insulation.

For Certificate of Assurance issuance the Colgrip insulation that must be mechanically attached to the structural decking. Wood decks must be minimum 16mm (5/8") thick to achieve the minimum 450 lbs. pull out value required for the insulation fasteners. Increased fastener density is required along perimeter and at roof corners.

3) Unilay Membrane System

A mechanically attached single ply membrane system approved for insulated designs over steel and wood decks and for un-insulated designs over non-combustible substrates. The Unilay membrane side seam is 200mm (8") wide and torched. The minimum roof drainage slope required for the Unilay membrane system is three percent (3%) or 3/8"/ foot.

ARCA acceptance is for torch seam applications and does not include adhesive seam applications at this time.

For insulated systems, polyisocyanurate insulation is the only primary insulation accepted for use immediately beneath the Unilay membrane and the polyisocyanurate insulation must be mechanically attached to the structural decking. Any ARCA accepted insulation can be used beneath the polyiso insulation.

For an uninsulated system over wood decks, an approved non-combustible substrate/underlay shall completely cover the wood decking.

Wood decks must be minimum 16mm (5/8") thick to achieve the minimum 450 lbs. pull out value required for the mechanical fasteners. Increased fastener density is required along perimeter and at roof corners.

4) Soprafix Membrane System

Acceptance for the two ply Soprafix membrane system has been extended to include insulated systems over wood decks as well as un-insulated systems over steel and wood decks.

Soprafix continued:

Wood decks must be minimum 16mm (5/8") thick to achieve the minimum 450 lbs. pull out value required for the mechanical fasteners. Increased fastener density is required along perimeter and at roof corners.

For insulated systems, polyisocyanurate insulation mechanically attached to the structural decking is the only primary insulation accepted for use directly beneath the Soprafix primary membrane base sheet for C of A issuance. Any ARCA accepted insulation maybe used beneath the polyiso insulation.

For un-insulated wood deck designs using the Soprafix 610 primary membrane base sheet, the wood decking must be fully covered with an approved non-combustible underlay prior to membrane application.

To improve fire safety and ease of application, Soprema has introduced the Soprafix 630 composite reinforced primary membrane base sheet. The Soprafix 630 membrane side seam incorporates Soprema's new 70 / 30 self-adhering / heat sealed side lap technology and maybe applied directly to uninsulated wood decks.

The Soprafix 630 base sheet is an upgrade to the Soprafix 610 base and is not intended to replace the currently accepted insulated Soprafix membrane system employing the Soprafix 610 base sheet mechanically attached over polyisocyanurate primary insulation.

Soprafix base sheet end laps must be aligned and sealed with a continuous torch-adhered primary membrane base sheet cover strip.

5) Soprabase FR End Laps

To increase fire safety and simplify the sealing of the Soprabase FR end laps when mechanically attached over combustible or heat sensitive substrates, such as foam plastic insulation or wood decks, the following application procedure must be followed.

The Soprabase FR panels shall be installed with end laps aligned over a minimum 150mm (6") wide continuous backing strip of an approved non-combustible material placed beneath end laps prior to torch sealing the end laps.

Current application procedure for hot bitumen applications over non-heat sensitive primary insulation or decks remains unchanged. The alignment of the Soprabase FR end laps is not a requirement for hot bitumen applications.

6) **Sopraboard Asphalt Core Board**

Minimum 3mm (1/8") thick Sopraboard asphalt core board adhered in hot bitumen or mechanically fastened to the structural decking over polyisocyanurate primary insulation has been approved for issuance of the five (5) year Certificate of Assurance.

Polyisocyanurate insulation is the only primary insulation approved for application directly beneath asphalt core board.

Asphalt coreboards, including Sopraboard, are an approved alternate to the coated roofing fiberboard or perlite secondary insulation covering. For mechanically fastened core board applications, any ARCA accepted insulation maybe used beneath the polyiso insulation.

NOTE:

Sopraboard has also accepted as an underlay for torch on modified bitumen membrane flashing applications over combustible substrates. A separate Technical Bulletin will be issued outlining minimum application standards when using asphalt coreboard as a membrane flashing underlay to protect combustible parapet and curb construction.

7) **XPressboard**

XPressboard is a mineral wool insulation panel made from Basalt rock fibre to which a polyester reinforced modified bitumen base sheet is factory laminated. Xpressboard and a torch adhered membrane flashing cap sheet have been approved as an alternate to a self adhering modified bitumen base sheet flashing application over combustible substrates.

Only 12.7mm (1/2") thick XPressboard is approved for this application when mechanically attached over combustible substrates in accordance with Soprema's installation requirements. A continuous tie-in strip of membrane flashing is required between the XPressboard and the primary membrane base sheet. When combustible materials exist behind or below the membrane flashing or primary membrane base sheet at the base of vertical junctions, a fire prevention tape backing must be placed behind the Xpressboard and primary membrane base sheet prior to torching.

A separate Technical Bulletin will be issued outlining minimum installation standards for XPressboard application at combustible parapets and curbs.