

THERMOPLASTIC ROOFING

SECTION 10 - RE-ROOFING

10.1 GENERAL

- .1 Re-roofing encompasses both primary membrane replacement and replacement of the entire roofing assembly above the structural deck.
- .2 Due to the unique nature of re-roofing, relief from the Warranty Certificate standard may be requested. When relief is requested, applications shall be made in a written submission to the ARCA Warranty Ltd. Technical Committee. This request for relief is termed a "Variance Request" and must contain all pertinent information explaining why relief is being requested.
- .3 The Warranty Certificate standards, as itemized in this manual, are applicable to re-roofing as well as new construction, with the exception that the existing drainage slope may be retained in a conventional membrane design if less than 1:100 (1/8"/ft.).
- .4 Sheet metal flashings adhered to the primary membrane shall be replaced with new materials. Base and cap flashings may be reused provided they are in good condition, fabricated to the Warranty Certificate standard, fit properly and are not bitumen contaminated.
- .5 The Warranty Certificate can only be issued on self-contained roof areas. Control joints may be required to create a self-contained area when partial roofing system replacement is carried out. Special attention to drainage provisions may be necessary.
- .6 Roof mounted equipment may need to be removed and reinstalled to facilitate replacement of the roofing system beneath them. Equipment mounted on properly constructed curbs of sufficient height may not require removal.
- .7 A minimum clearance of 100 mm (4") shall be maintained between the underside of service lines and the surface of the completed roofing system.
- .8 When an existing roofing system is of a bitumen type construction then care must be taken to ensure that the bitumen materials do not come into contact with thermoplastic membranes.
- .9 Bitumen contaminated surfaces shall be covered with an acceptable overlayment prior to membrane attachment.
- .10 In some instances there may be two (2) roof systems one above of the other, over an existing roof area. Where two (2) primary membranes are present, both primary membranes shall be removed.
- .11 Prior to reroofing, all damaged or deteriorated decks and substrates shall be replaced or repaired with similar materials.

10.2 PRIMARY MEMBRANE REPLACEMENT

- .1 When considering an existing conventional insulated roofing system for primary membrane replacement the following factors require evaluation:
 - a) The effect that the lack of a vapour retarder may have had on the failure of the existing membrane.
 - b) The type, condition and thickness of the existing insulation and the amount of moisture that may have infiltrated the insulation (dryness).
 - c) The existing roof deck type and its structural integrity if moisture reached the deck.
 - d) The attachment of roofing system components to their existing substrates.
- .2 When membrane replacement is undertaken, uncorrected defects hidden from view, such as wet insulation or deteriorated deck, could jeopardize roofing system performance.
- .3 Wet and damaged insulation shall be removed and replaced with new insulation, to match the existing thickness.
- .4 Care must be taken to ensure all wet insulation is located and replaced.
- .5 Under no circumstance shall a phenolic resin insulation product be left in place or reused.
- .6 Existing wood fiberboard, mineral fiber/perlite and stramit primary insulation shall not be left in place or reused.
- .7 Existing polyisocyanurate, urethane, foamglass, cork, expanded polystyrene and minimum 38 mm (1.5") thick glass fiber or polystyrene roof insulation may be reused when approved by the membrane manufacturer. Care must be taken to ensure that the existing primary insulation is adequately attached to the existing vapour retarder membrane and structural deck.

10.3 ROOFING SYSTEM REPLACEMENT

- .1 After tear-off the exposed substrate shall be inspected for deterioration or damage and repairs undertaken prior to the application of the replacement roofing system.
- .2 Control joints, parapets, curbs and roof/wall junctions shall be adjusted to comply with the minimum height requirements for new construction.
- .3 For conventional insulated designs, the application of a vapour retarder is a requirement whether or not the original roofing system contained a vapour retarder membrane.
- .4 An existing roofing felt vapour retarder may be left in place if well adhered. Any wet or damaged felt membrane shall be removed and an additional one (1) ply of felt adhered with hot bitumen shall cover the entire felt vapour retarder surface.

10.4 INSPECTION

- .1 When primary membrane replacement occurs over existing rigid glass fiber insulation, inspection of the exposed insulation by an ARCA Accepted Inspector is required at the time of tear off, for both rural and urban projects. Additionally, if there is a history of leaking, the inspector shall perform moisture meter or cut tests, one for each 1000 ft² of insulation area. These quality assurance inspections are in addition to the normal inspections required for Warranty Certificate issuance.