3 EPDM - SECTION 3 – SEPARATOR SHEETS & AUXILIARY LEVELING SURFACES

3.1 Separator Sheets

3.1.1 **General**

3.1.1.1 Separator sheets are materials used to separate roofing system components, to prevent material incompatibility or to prevent adhesion.

3.1.1.2 Separator sheets are not required for uninsulated fully adhered E.P.D.M. membrane systems.

3.1.1.3 Separator sheets are not accepted for uninsulated ballasted or mechanically fastened E.P.D.M. membrane systems, refer to auxiliary leveling surface requirements.

3.1.1.4 For conventional insulated E.P.D.M. design, the vapour retarder membrane will serve as the separator sheet.

3.1.1.5 All bitumen based materials must be removed or covered with an acceptable separator sheet as E.P.D.M. membrane is not compatible with bitumen products

3.2 Auxiliary Leveling Surfaces

3.2.1 **General**

3.2.1.1 An auxiliary leveling surface is a material used to provide a smooth substrate to which roofing system components can be adhered.

3.2.1.2 ARCA accepted auxiliary leveling surfaces may be comprised of a minimum 9.5mm (3/8") thick Fibre Reinforced Gypsum Panel (ASTM C1278-17), 12.7mm (1/2") thick Glass Mat Gypsum Substrate (ASTM 1177), 12.7mm (1/2") thick Gypsum Board (ASTM C1396), 12.7mm (1/2”) Fiber-Mat Reinforced Cementitious Board (ASTM 1325), 12.7mm (1/2") thick plywood, or 12.7mm (1/2") thick O.S.B. when not used as a thermal barrier.[3]

3.2.1.3 For loose-laid and ballasted designs the auxiliary leveling surface may be loose-laid.

3.2.1.4 The existing substrate type and condition will determine the auxiliary leveling surface type.[4]

3.2.1.5 Where required by the current National Building Code – Alberta Edition, a thermal barrier may be used as an auxiliary leveling surface.

3.2.1.6 Deck fills are not permitted with fully adhered E.P.D.M. membrane systems.

3.2.1.7 When torching over heat sensitive substrates or insulation, all joints must be covered with 150mm (6”) 1.5mm (60mil) self-adhesive fire tape.

3.2.1.8 The attachment method of the auxiliary leveling surface may be determined by a building code requirement, wind-uplift design requirement or system replacement requirement.[5]

3.2.2 **Wood Decks**

3.2.2.1 For dimensional lumber decks an accepted auxiliary leveling surface shall be mechanically fastened to completely cover the lumber decking.

3.2.2.2 An auxiliary leveling surface is not required for smooth surfaced plywood decks.

3.2.2.3 Some E.P.D.M. membrane manufacturers may not accept oriented strand board (O.S.B.) as the substrate for fully adhered membrane systems.

[3] EPDM 3.2.1.2 Revised June 16 2022 (TB-2022-04)
[4] EPDM 3.2.1.4 Revised March 4, 2026 (TB-2026-01)
[5] EPDM 3.2.1.8 Added March 4, 2026 (TB-2026-01)

3.2.3 **Steel Decks**

3.2.3.1 For uninsulated designs an accepted auxiliary leveling surface (excluding perlite and wood fiber boards) shall completely cover the steel decking prior to membrane application.

3.2.3.2 The auxiliary leveling surface may be attached to the steel decking using one of the following attachment methods.

3.2.3.2.1 Continuous beads or a full roller coating of an adhesive applied to the top flanges of the steel deck in accordance with the adhesive manufacturer's application rates.

3.2.3.2.2 Minimum twenty (20) self tapping drywall screws per 1200mm x 2400mm (4' x 8') sheet fastened through the top flange of the steel decking. Where drywall screws break the gypsum board paper covering, install a replacement screw in approximately the same location. Additional fasteners may be required to meet wind uplift standards.

3.2.3.2.3 When using screws and plates for attachment, use a minimum of eight (8) per 1200mmx2400mm (4' x 8') sheet fastened through the top flange of the steel decking. Additional fasteners may be required to meet wind uplift standards.

CAUTION: Attachment methods for steel deck are experienced based.
ARCA has not conducted formal wind studies.

3.2.3.3 Hot bitumen shall not be used to adhere roofing materials directly to steel decks.

3.2.3.4 To qualify for an ARCA 15 Year Warranty Certificate, a minimum 12.7mm (1/2") glass faced gypsum auxiliary leveling surface shall be either mechanically fastened or adhered with an ARCA accepted adhesive to the structural deck.[6]

3.2.4

3.2.5 **Concrete Decks**

3.2.5.1 An auxiliary leveling surface is not required over concrete decks.

3.2.5.2 Damaged and deteriorated concrete decks shall be repaired to provide a smooth substrate for roofing system application.

[6] EPDM 3.2.3.4 Revised February 27, 2025 (TB-2025-01)