



Developing roofing solutions with everyone in mind
Des solutions de toiture soucieuses de l'environnement et des gens

Product

ProtecRSS THERMAL BARRIER BOARD (butt edge, bitumen coated on top side)

Specification

Steel Deck - Mechanically Attached

Note: The following are suggested specification paragraphs for use when specifying ModulR TS products as part of a conventional roofing membrane assembly. The information is organized and presented to assist in the writing of the project specification. For further consultation please contact ModulR TS or refer to the N.B.C., Canadian Roofing Contractors Association Specification Manual, ULC, or Factory Mutual.

PART 1 GENERAL

.1 REFERENCE STANDARDS

- .1 ASTM C-726 Standard specification for Mineral Fiber Roof insulation Boards
- .2 ASTM C303 Standard for Dimensions and Density of Preformed block Type Thermal Insulations
- .3 CAN/ULC S-102 Surface Burning Characteristics
- .4 CAN4-S114-M80 Test for Determination of Non-Combustibility in Building Materials
- .5 N.R.C. Wind Roof Calculator (http://irc.nrc-cnrc.gc.ca/bes/prsi/calc_new/rciintro_e.html)

Part 2 WARRANTY

- .1 The membrane product manufacturer will issue a written and signed document in the owner's name, certify that the roofing membranes are free of manufacturing defects for a period of ten (10) years, starting from the date of acceptance. This warranty will cover the removal and replacement of defective roof membrane products, including labour.

PART 3 PRODUCTS

.1 Steel Deck

.2 ProtecRSS Thermal Barrier Board (vapour barrier support)

- .1 Layer of 1" (25mm) rigid mineral board of an actual density 11 lbs cu. ft. (176 kg/m²), nominal density not acceptable, manufactured from basalt rock and steel slag to ASTM C726. Top side saturated with bitumen and light coating of sand.
- .2 Board Size 4' x 4' x 1" (1220mm x1220mm x 25mm) butt edge.
- .3 Acceptable Product: "**ProtecRSS THERMAL BARRIER BOARD**", manufactured by ModulR TS.

.3 Primer for Self Adhesive Applied Membranes

- .1 Emulsion based primer for Self Adhesive Applied Membranes to provide enhanced adhesion.

.4 Fasteners

- .1 Screws and Plates in conformance with FM Standard 4470.

.5 Vapour Barrier (Options)

- .1 Hot Mop 2 ply 15 lb. felt.
- .2 Torched Mod. Bit. membrane.
- .3 Self Adhesive membrane.

THERMAL BARRIER BOARD
Steel Deck - Mechanically Attached

.6 Insulation - Flat or Tapered (Options)

- .1 (Option 1) **ProtecRSS Composite -Thermochech**, manufactured by ModulR TS (see **ProtecRSS Composite-Thermochech** Specification sheet)
- .2 .1 (Option 2) other insulation
 - .1 Polyisocyanurate (RSI / R-Value -Thickness **mm/***)
 - .2 Expanded Polystyrene (RSI / R-Value -Thickness **mm/***)
 - .3 Extruded Polystyrene (RSI / R-Value -Thickness **mm/***)
- .2 **ProtecRSS Overlay / Protection Board**
 - .1 Layer of 1" (25mm) rigid mineral board of an actual density 11 lbs cu. ft. (176 kg/m²), nominal density not acceptable, manufactured from basalt rock and steel slag to ASTM C726. Top or top and bottom side saturated with bitumen and light coating of sand.
 - .2 Board Size 4'x4'x1" (1220 mm x1220mm x 25mm) shi lap edge.
 - .3 Acceptable Product: "**ProtecRSS OVERLAY/PROTECTION BOARD**", manufactured by ModulR TS.

.7 Cants

- .1 Rigid mineral wool fibre cants manufactured from basalt rock and steel slag to ASTM C726. Top side saturated with bitumen and light coating of sand.
- .2 Acceptable product "**CANTRSS**" manufactured by ModulR TS.

.8 Roof Membrane (Options)

- .1 Modified Bitumen Membrane
 - .1 Torch Applied
 - .2 Hot Applied
 - .3 Self Adhered
 - .4 Cold Applied
- .2 B.U.R.
 - .1 Hot Applied
 - .2 Cold Applied

PART 4 EXECUTION

.1 Steel Deck

.2 ProtecRSS Thermal Barrier Board (vapour barrier support)

- .1 Mechanically fastened to the top flutes of the steel deck with FM approved screws and plates as prescribed by FM.

.3 Primer for Self Adhesive Applied Membranes

- .1 Install over roof deck substrates prior to the installation of the Self Adhesive Vapour Barrier Membrane.
- .2 Apply primer as recommended by the manufacturer.
- .3 Primer must be compatible to the Self Adhesive Vapour Barrier Membrane.

.4 Vapour Barrier (Options)

- .1 Mop 2 ply 15 lb. Felt as per CRCA SO-VR-1
- .2 Torch Applied as per manufacturer instructions.
 - .1 Apply directly onto clean substrate.
 - .2 Overlap side laps and end laps as per manufacturer instructions.
 - .3 Turn-up Vapour Barrier sheet on vertical surfaces.
 - .4 All laps and vertical penetrations to be flashed as per manufacturer's details.
- .3 Self Adhere as per manufacturer's instructions.
 - .1 Apply directly onto clean primed substrate by removing silicone cover sheet.
 - .2 Overlap side laps and end laps as per manufacturer's instructions.
 - .3 Turn-up Vapour Barrier sheet on vertical surfaces.
 - .4 All laps and vertical penetrations to be flashed as per manufacturer's details.

THERMAL BARRIER BOARD
Steel Deck - Mechanically Attached

.5 Insulation

- .1 (Option1) **ProtecRSS Composite – Thermochech** Insulation
 - .1 Install Insulation panels tightly together.
 - .2 Mechanically fastened with FM approved screws and plates at plug positions through the insulation into the top flutes of the steel deck.
 - .3 **“ProtecRSS COMPOSITE - THERMOCHEC”** provides plug locations for screws and plates in the field and perimeter as prescribed by FM.
 - .4 With increased number of screws and plates required in the corner areas, install **“ProtecRSS COMPOSITE SYSTEM”** in two layers at these locations.
 - .5 Install insulation plugs in field and perimeter and second layer of insulation at corners with adhesives recommended by product manufacturer.
 - .6 Install only as much insulation as can be covered in the same day.
- .2 (Option2) Other Insulation
 - .1 Install Insulation panels tightly together.
 - .2 Stagger joints between insulation layers.
 - .3 Install only as much insulation as can be covered in the same day.
 - .4 Install tapered insulation as per approved shop drawings.
 - .5 ProtecRSS Overlay / Protection Board (not required if using Composite Insulation)
 - .1 Install **“ProtecRSS OVERLY / PROTECTION BOARD”** panels tightly together over insulation, stagger joints between layers.
 - .2 Mechanically fastened with FM approved screws and plates through the insulation into the top flutes of the steel deck as prescribed by FM.
 - .3 Increase number of screws and plates in the perimeters and corners as prescribed by FM for wind-up resistance.
 - .4 Apply only as many boards as can be covered in the same day.

.6 Cants

- .1 Install cants at vertical walls of the perimeter parapet and roof top curbs with a full coverage of compatible adhesive.

.7 Roof Membrane

- .1 Modified Bitumen membrane.
 - .1 Install as per manufacturer's instructions
- .2 B.U.R.
 - .1 Install as per CRCA Technical Manual or manufacturer's Instructions.