Product

ProtecRSS COMPOSITE THERMOCHEC

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 Canadian Roofing Contractors Association Specification Manual, ULC, or Factory Mutual.

PART 1 GENERAL

.1 REFERANCE STANDARDS

.1 ASTM C-726 Standard specification for Mineral Fiber Roof insulation Boards
.2 ASTM C-612-09 Standard specification for Mineral Fiber insulation actual density
.3 ASTM C303 Standard for Dimensions and Density of Preformed Block Type Thermal Insulations
.4 CAN/ULC S-102 Surface Burning Characteristics
.5 CAN4-S114-M80 Test for Determination of Non-Combustibility in Building Materials
.6 CAN/ULC-S704-01 Thermal Insulation, Polyurethane and Polyisocyanurate Boards
.7 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, certifying 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 wool fiber board of a minimum actual density (ASTM C612-09) of 11 lbs cu. ft. (176 kg/m²), nominal density not acceptable, 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 Adhered membrane.

.6 Insulation – ProtecRSS COMPOSITE THERMOCHEC

.1 Layer of 25mm (1") rigid mineral wool fiber board of a minimum actual density (ASTM C612-09) 11lbs. cu / ft (176 kg/M³), nominal density not acceptable, manufactured from basalt rock and steel slag to ASTM C726. Top side saturated with bitumen and light coating of sand. Factory laminated to ** mm (** in.) polyisocyanurate insulation providing 25mm (1") shiplap on all sides. Top board has 150mm (6") diameter plugs locations for screw and plate placement as prescribed by FM. Overall thickness of** mm (** in.) combined thermal resistance of ** RSI (**R-Value).

.2 Board Size 4'x4' (1220mm x 1220mm)

.3 Acceptable Product: **"ProtecRSS COMPOSITE THERMOCHEC",** manufactured by ModulR TS.

.7 Insulation – "TAPERED ProtecRSS COMPOSITE THERMOCHEC"

.1 Layer of 25 mm (1") rigid mineral wool fiber board of a minimum actual density (ASTM C612-09) 11lbs. cu / ft (176 kg/M³), nominal density not acceptable, manufactured from basalt rock and steel slag to ASTM C726. Top side saturated with bitumen and light coating of sand. Factory laminated to polyisocyanurate insulation providing 25mm (1") shiplap on all sides. Top board has 150mm (6") diameter plugs locations for screws and plates placement as prescribed by FM. Thickness at the drain of **mm (**in.) with a tapered slope of (1%, 2% or greater upon request), providing an (minimum or average) thermal resistance of RSI (R-Value)

.2 Board Size 4'x4' (1220mm x 1220mm)

.3 Acceptable Product: ProtecRSS **"TAPERED ProtecRSS COMPOSITE THERMOCHEC"**, manufactured by ModulR TS.

.8 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

.9 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 at a rate 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.

.5 Insulation – ProtecRSS COMPOSITE THERMOCHEC (Flat or Tapered)

.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 tapered insulation as per approve shop drawings.

.7 Do not install more insulation that can be completely roofed in one day.

.8 Temporarily seal the roof from water penetration with a cut-off seal at the end of each work day.

.9 Remove cut-off when commencing work**.**

.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.