Product

TAPERED POLYISO SYSTEM (Laminated tapered Polyiso spec immediately following this spec)

Specification

Steel Deck- Mechanically Attached

Note: Following are suggested specification paragraphs to be used when specifying ModulR TS products as part of a conventional roofing membrane assembly. The information is organized and presented to assist in the writing the project specification. For further consultation 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 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 CAN/ULC-S704-01 Thermal Insulation, Polyurethane and Polyisocyanurate Boards
.6 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 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.
.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 Fasteners

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

.4 Primer for Self Adhesive Applied Membranes

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

.5 Asphalt

.1 In compliance with CSA A A123-7.

.6 Asphalt Felts

.1 No. 15 perforated.

.7 Vapour Barrier (Options)

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

.8 Fasteners

.1 Mechanically fastened with FM approved screws and plates through the insulation into the top flutes of the steel deck as prescribed by FM for a wind-up resistance of FM-90.
.2 Fastening pattern as prescribed by FM with increase number of screw and plates in perimeters and corners.

.9 Insulation-Tapered Polyiso System

.1 Tapered and filler polyisocyanurate insulation. 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: "**TAPERED POLYISO SYSTEM"** manufactured by ModulR TS.

.10 ProtecRSS Overlay / Protection Board

.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.
.2 Board Size 4'x4'x1" (1220 mm x1220mm x 25mm) shiplap edge.
.3 Acceptable Product: **"ProtecRSS OVERLAY/PROTECTION BOARD",** manufactured by ModulR TS.

.11 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.

.12 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 at a rate of 1 per 2.7 sq. ft. (1 per 0.82 M²). Screw pattern 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's instructions.

.1 Apply directly onto clean substrate.

.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 manufacturers details.

.3 Self-Adhered.

.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 manufacturers details.

.5 Insulation - Tapered Polyiso System

.1 Mechanically attach "**TAPERED POLYISO SYSTEM"**.

.2 Ensure insulation panels tightly together.

.3 Install tapered as per approved shop drawings.

.4 Apply only as much insulation as can be covered in the same day

.6 ProtecRSS Overlay / Protection Board

.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

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

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

.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

.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.

Product

LAMINATED TAPERED POLYISO SYSTEM

Specification

Steel Deck- Mechanically Attached

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

PART 1 GENERAL

.1 REFERANCE STANDARDS

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.3 CAN/ULC S-102 Surface Burning Characteristics
.4 CAN4-S114-M80 Test for Determination of Non-Combustibility in Building Materials
.5 CAN/ULC-S704-01 Thermal Insulation, Polyurethane and Polyisocyanurate Boards
.6 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 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.
.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 Fasteners

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

.4 Primer for Self Adhesive Applied Membranes

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

.5 Asphalt

.1 In compliance with CSA A A123-7.

.6 Asphalt Felts

.1 No. 15 perforated.

.7 Vapour Barrier (Options)

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

.8 Fasteners

.1 Mechanically fastened with FM approved screws and plates through the insulation into the top flutes of the steel deck as prescribed by FM for a wind-up resistance of FM-90.
.2 Fastening pattern as prescribed by FM with increase number of screw and plates in perimeters and corners.

.9 Insulation-Laminated Tapered Polyiso System

.1 Factory laminated to polyisocyanurate insulation providing 1" (25mm) shiplap on all sides. 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'x1"(1220mm x 1220mm x 25mm) shiplap edge.
.3 Acceptable Product: "**LAMINATED TAPERED POLYISO SYSTEM"** manufactured by ModulR TS.

.10 ProtecRSS Overlay / Protection Board

.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.
.2 Board Size 4'x4'x1" (1220 mm x1220mm x 25mm) shiplap edge.
.3 Acceptable Product: **"ProtecRSS OVERLAY/PROTECTION BOARD",** manufactured by ModulR TS.

.11 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.

.12 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
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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 at a rate of 1 per 2.7 sq. ft. (1 per 0.82 M²). Screw pattern 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's instructions.

.1 Apply directly onto clean substrate.

.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 manufacturers details.

.3 Self-Adhered.

.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 manufacturers details.

.5 Insulation - Laminated Tapered Polyiso System

.1 Mechanically attach "**LAMINATED TAPERED POLYISO SYSTEM"**.

.2 Ensure insulation panels tightly together.

.3 Install tapered as per approved shop drawings.

.4 Apply only as much insulation as can be covered in the same day

.6 ProtecRSS Overlay / Protection Board

.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

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

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

.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

.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.