



DIVISION 7: THERMAL AND MOISTURE PROTECTION

GENERAL PROVISIONS

INSULATED THERMAL SHELL WITH NO BREAKS OR PENETRATIONS.

2. NOTES: INSULATION VALUES SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AND/OR VALUES SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, WHICHEVER REQUIREMENT PROVIDES THE GREATER "R" VALUE.

3. QUALITY CONTROL: THE OWNER SHALL BE NOTIFIED WHEN THE INSULATION IS IN PLACE, PRIOR TO THE INSTALLATION OF FINISH MATERIALS.

THE LISTED INSULATIONS ARE AVAILABLE THROUGH QUALIFIED ROOFING INSTALLERS. SEE NATIONAL ACCOUNTS INDEX.

4. PERIMETER FOUNDATION INSULATION (AND 2" MASONRY WALL CAVITY INSULATION WHEN SHOWN) SHALL BE STYROFOAM SM BY DOW CHEMICAL CO. OR APPROVED EQUAL, 2" THICK. THERMAL CONDUCTIVITY SHALL BE .20 BTU/HR/SQ.FT./INCH THICKNESS AT 75 DEG F MEAN TEMPERATURE, R-10 VALUE.

5. CONCRETE BLOCK CELL INSULATION FOR MASONRY WALLS SHALL BE SILICONE-TREATED PERLITE LOOSE-FILL INSULATION BY A MEMBER OF THE PERLITE INSTITUTE.

1. INSTALLATION:

- A. FIBERGLASS INSULATION: STAPLE AND/OR TAPE IN PLACE WITH VAPOR BARRIER SIDE INWARD. ALL JOINTS SHALL BE SEALED TO PREVENT AIR AND VAPOR PENETRATION. ALL PENETRATIONS AND PLUMBING AND ELECTRICAL BOXES SHALL BE INSULATED ON THE OUTWARD SIDE. ANY JOINTS NOT OVER WOOD FRAMES OR BLOCKING SHALL BE STAPLED THOROUGHLY, TUFFED UNDER DOOR FRAMES AND CLOSELY SCALED FRAMING MEMBERS.
- B. ROOF INSULATION: USE MECHANICAL FASTENERS WITH STEEL OR WOOD DECK. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS OF SIX (6) PER BOARD FOR EACH PAGER PANEL. END JOINTS AT ADJACENT PANEL MID POINT.
- C. PERIMETER FOUNDATION INSULATION: INSTALL FROM TOP OF SLAB DOWNWARD 24" WHEN FOUNDATION DEPTH PERMITS. OTHERWISE INSULATION SHALL EXTEND FROM TOP TO BOTTOM OF SLAB AND THEN HORIZONTALLY UNDER SLAB 24" TOWARD INTERIOR OF BUILDING.
- D. MASONRY CAVITY WALL INSULATION: INSTALL IN CAVITY WHEN SHOWING BETWEEN MASONRY WALL REINFORCING AS WALL IS BEING Laid.
- E. CONCRETE BLOCK CELL INSULATION: INSTALL WHEN SHOWING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

1. SCOPE: FURNISH AND INSTALL MEMBRANE ROOFING SYSTEM THROUGH THE NATIONAL ACCOUNT PROGRAM DESCRIBED BELOW, INCLUDING ALL FLASHING, BACK FLASHING INSULATION AND RELATED MATERIALS REQUIRED FOR A COMPLETE, WATERPROOF INSTALLATION.

A. PAYMENT FOR THIS SECTION WILL BE MADE AFTER RECEIPT OF MANUFACTURER'S FULL REPLACEMENT NDL (NO DOLLAR LIMIT) 10-YEAR WARRANTY FOR MATERIALS AND LABOR.

B. CAUTION: THE HVAC SYSTEM IS DESIGNED WITH THE THERMAL CHARACTERISTICS OF HI-TUFF MEMBRANE AND NO VARIATIONS ARE ALLOWED UNLESS GIVEN PRIOR WRITTEN APPROVAL BY POPEYES ARCHITECTURE AND ENGINEERING DEPARTMENT.

- (1) A NATIONAL ACCOUNT HAS BEEN ESTABLISHED WITH JPS ELASTOMERICS CORPORATION FOR PURCHASING HI-TECH ROOFING SYSTEM MATERIALS. REFER TO TITLE SHEET FOR INFORMATION.
- (2) INSTALLATION OF ROOF MEMBRANE SYSTEM ONLY BY MANUFACTURER APPROVED INSTALLERS. USING NON-APPROVED INSTALLERS MAY VOID WARRANTY PROGRAM WITH MANUFACTURER.
- (3) NOTIFY ROOFING CONTRACTOR A MINIMUM OF THREE (3) WEEKS IN ADVANCE OF NEEDED ROOF INSTALLATION DATE.
- (4) MATERIALS AND INSTALLATION FOR ROOFING AND FLASHING SHALL ONLY BE THROUGH THE NATIONAL ACCOUNT PROGRAM DESCRIBED.
- (5) MANUFACTURER'S REPRESENTATIVE SHALL INSPECT THE ROOF INSTALLATION, IF REQUIRED, PRIOR TO ISSUING 10-YEAR NDI MATERIALS AND LABOR WARRANTY.

SINGLE PLY-ROOF

1. MEMBRANE ROOFING SYSTEM: HI-TUFF, MECHANICALLY FASTENED 45-MIL.
- A. ROOF MEMBRANE: 45-MIL, REINFORCED, HI-TUFF, WHITE, HYPALON ROOF MEMBRANE.
- B. MEMBRANE FLASHING: SAME AS ROOF MEMBRANE, EXCEPT WHERE "MOLDING" IS REQUIRED.
- C. MOLDED FLASHING: 45-MIL, NON-REINFORCED, WHITE, HI-TUFF HYPALON FLASHING MEMBRANE.
- D. METAL FLASHING AND ROOF SCUPPERS: HI-TUFF COATED METAL AS REQUIRED.
- E. MEMBRANE FASTENERS: FOR WOOD/STEEL DECK JPS ELASTOMERIC (OLYMATIC CR-10) FASTENERS WITH EXTRA FLUOROCARBON CORROSION-RESISTANT COATING, FASTENERS ARE NOT TO PROTRUDE BELOW ROOF DECK GREATER THAN 1".
- F. FASTENER FASTENERS: FOR WOOD/STEEL DECK STANDARD JPS ELASTOMERIC (OLYMATIC CR-10) FASTENERS WITH CORROSION-RESISTANT COATING.
- G. MEMBRANE ADHESIVE - JPS ELASTOMERIC BONDING ADHESIVE, SOLVENT-BASED CONTACT ADHESIVE.
- H. PRIMER: SOLVENT-BASED SYNTHETIC RUBBER PRIMER USED TO PREPARE MEMBRANE FOR REPAIR.
- I. CAULKING: JPS HI-TUFF ALL-PURPOSE SEALANT OF EXTERIOR GRADE.
- J. TRAFFIC PAD: JPS WALKWAY PAD.
2. ROOF INSULATION BOARD: CLOSED CELL POLYISOCYANURATE FOAM CORE WITH FACTORY LAMINATED FIBER CORE WITH FLAME SPREAD OF 25 OR LESS AND COMPRESSIVE STRENGTH OF 20 PSI OR GREATER (ASTM D-1621) WITH A MINIMUM R VALUE OF 16. AC FOAM SUPPLIED BY ATLAS OR EQUIVALENT APPROVED BY JPS ELASTOMERICS, INC.
3. NAILERS: TREATED WOOD.

1. SURFACE PREPARATION: THE ENTIRE AREA TO BE ROOFED SHALL BE FREE OF DEBRIS AND GROSS IRREGULARITIES.

2. ROOF FLASHING: FLASHINGS SHALL BE INSTALLED IN ACCORDANCE WITH JPS ELASTOMERICS' INSTRUCTIONS.
- A. FLASHING MEMBRANE SHALL BE FULLY ADHERED, USING BONDING ADHESIVE, TO VERTICAL SUBSTRATES. IN ADDITION, MEMBRANE FLASHINGS SHALL BE MECHANICALLY FASTENED AT 6" O.C. HOT AIR WELDING SHALL BE USED AT THE INTERSECTION OF THE FLASHING THAT OVERLAPS 8" ONTO THE FIELD OF THE ROOF MEMBRANE OR ONTO AN ADJACENT FLASHING.
3. ROOFING SHEET: MEMBRANE SHALL BE UNROLLED IN AN AREA TO BE COVERED. MECHANICAL FASTENERS AND PLATES SHALL BE INSTALLED ALONG THE LEADING EDGE OF THE MEMBRANE AND AT THE SEAM, THROUGH THE INSULATION AND INTO THE SUBSTRATE. FASTENERS SHALL BE DETERMINED BY JPS ELASTOMERICS TO RESIST LOCAL WIND LOADS. ADJOINING ROLLS OF THE MEMBRANE SHALL OVERLAP THE FASTENED EDGE OF THE INSTALLED MEMBRANE BY A 1/2" MINIMUM. SEAM AREA SHALL BE REINFORCED WITH AN APPROVED, ANCHORED HOT AIR WELDING MACHINE. INSTALL EXTRA LAYER OF MEMBRANE UNDER EQUIPMENT AND EQUIPMENT SUPPORTS NOT ATTACHED THROUGH ROOF MEMBRANE.
4. 4" X 8" INSULATION BOARDS ARE TO BE FASTENED TO THE DECK WITH A MINIMUM OF SIX (6) FASTENERS PER BOARD. ENSURE FASTENERS DO NOT PENETRATE CONDUIT OR OTHER UTILITIES. STAGGER BOARD JOINTS, STAGGER PANEL JOINTS AT ADJACENT PANEL MID POINTS. USE MECHANICAL FASTENERS WITH STEEL OR WOOD DECK.
5. TRAFFIC PAD: ADHERED TO ROOF AT TOP OF ROOF LADDER WITH CONTACT ADHESIVE COMPATIBLE WITH ROOF MEMBRANE.
6. CLEANUP: THE ROOFING CONTRACTOR SHALL CLEAN THE CONSTRUCTION AREA OF HIS DEBRIS AND SHALL REMOVE HIS DEBRIS TO A JOBSITE TRASH CONTAINER.
7. WARRANTY: FURNISH TO THE OWNER THE MANUFACTURER'S NDL (NO DOLLAR LIMIT) 10-YEAR WARRANTY FOR FULL REPLACEMENT OF MATERIALS AND LABOR.

MODIFIED BITUMEN SHEET ROOFING

PART 1 - GENERAL

1.01 SUMMARY

- A. PROVIDE THE FOLLOWING:
1. WHITE GRANULAR MODIFIED BITUMEN ROOFING SYSTEM AND ROOFING SYSTEM AND ROOF INSULATION.

1.02 SUBMITTALS

- A. SUBMIT FOR APPROVAL SAMPLES, PRODUCT DATA, WARRANTY, TEST REPORTS, MAINTENANCE DATA.

1.03 QUALITY ASSURANCE

- A. COMPLETELY WITH GOVERNING CODES AND REGULATIONS, PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS, USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. LISTING: UL CLASS [A] [B] [C] EXTERNAL FIRE EXPOSURE AND CLASS [30] [60] [90] WIND-UP-LIFT REQUIREMENTS.
- C. LISTING: FM CLASS I CONSTRUCTION.

1.04 WARRANTY

- A. ROOFING WARRANTY: MANUFACTURER'S 10 YEAR WARRANTY.

2.01 MATERIALS

- A. MANUFACTURERS: FIRESTONE BUILDING PRODUCTS CO., ELIZOTEC CORP., GAF BUILDING MATERIALS, SUPREME ROOFING AND WATERPROOFING OR APPROVED EQUAL. PROVIDE MATERIALS COMPATIBLE WITH ROOFING SPECIFICATIONS FOR SPECIFIC JOB FROM THE FOLLOWING:
 - 1. TYPE: FULLY ADHERED.
 - 2. MODIFIER: ATACTIC POLYPROPYLENE (APP).
 - 3. MODIFIER: STYRENE-BUTADIENE-STYRENE (SBS).
- C. AUXILIARY MATERIALS:
 - 1. VAPOR RETARDER: BITUMINOUS VAPOR RETARDER.
 - 2. INSULATION: GLASS-FIBER BOARD.
 - 3. INSULATION: FIBER BOARD.
 - 4. INSULATION: POLYISOCYANURATE-FOAM BOARD.
 - 5. INSULATION: COMPOSITE INSULATION BOARD.
 - 6. INSULATION: PHENOLIC-FOAM BOARD.
 - 7. INSULATION: CELLULOSE GLASS BOARD.
 - 8. INSULATION: FIBERBOARD.
 - 9. INSULATION: EXTRUDED POLYSTYRENE BOARD.
 - 10. WALKWAY PROTECTION BOARDS: COMPATIBLE WITH SYSTEM.
 - 11. SHEET METAL ACCESSORIES: SMACNA AND NRCA RECOMMENDATIONS.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. INSPECT SUBSTRATE AND REPORT UNSATISFACTORY CONDITIONS IN WRITING. BEGINNING WORK MEANS ACCEPTANCE OF SUBSTRATE. COORDINATE INSTALLATION OF SUBSTRATE MATERIALS INCLUDING CARPENTRY, FLASHING AND PENETRATING WORK.
- B. COMPLY WITH NRCA ROOFING AND WATERPROOFING MANUAL AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- C. CLEAN, PRIME AND PREPARE SUBSTRATE.
- D. INSTALL INSULATION WITH TIGHTLY BUTTED JOINTS AND NEATLY FITTED AROUND PENETRATIONS.
- E. VERIFY ROOF INSTALLATION IS CORRECT IN PRESENCE OF MANUFACTURER'S REPRESENTATIVE.
- F. INSTALL WALKWAY PROTECTION MEMBRANE AT LOCATIONS INDICATED AND WHERE REQUIRED TO PROVIDE ACCESS TO ROOF MEANS AND TO MEANS.
- G. RESTORE OR REPLACE DAMAGED COMPONENTS. PROTECT WORK FROM DAMAGE.