

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

1. ENERGY COMPLIANCE

FIXED WINDOWS (GLASS) SHALL BE SEALED TO LIMIT AIR INFILTRATION.

HOLLOW METAL OR SOLID CORE WOOD DOORS: PROVIDE VINYL OR SHEET METAL WEATHER SEAL AT HEAD, JAMB AND SILL AT ALL EXTERIOR DOORS.
EXTERIOR STORE FRONT HINGED DOORS: PROVIDE VINYL SEAL AT SILL AND CONTINUOUS FIBER GLASS STRIP VERTICALLY AND AT TOP RAILS.

OPEN EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES: BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, BETWEEN WALL PANELS, AT PENETRATION OF UTILITIES THROUGH THE ENVELOPE, SHALL BE SEALED CALKED OR WEATHER-STRIPPED TO LIMIT AIR LEAKAGE.

2. BUILDING INSULATION

WORK INCLUDED: WINDOW FRAME AND INSTALL RIGID, THERMAL BATT, AND SOUND BATT INSULATION.

ROOF INSULATION: RIGID POLY-ISO INSULATION: R30 MINIMUM

BATT INSULATION: R-19, R-13, R-11 AS SHOWN ON PLANS, KRAFT FACED WITH STAPLING FLANGE FOR WOOD STUD WALL CONSTRUCTION, FOIL REINFORCED KRAFT FACING (FRK) WITH STAPLING FLANGE FOR WOOD STUD APPLICATION IN ATTIC AREAS (FS-25 WITH FLAME SPRAYED OF 25), AS MANUFACTURED BY OWENS CORNING FIBERGLASS, OR EQUAL.

SOUND BATT INSULATION: NON-COMBUSTIBLE MINERAL FIBERGLASS BATTS WITH MINIMUM 3 1/2" THICKNESS.

VAPOR BARRIER: TRANSLUCENT POLYETHYLENE FILM FOR USE IN ABOVE GRADE BUILDING CONSTRUCTION, 6 MIL MINIMUM THICKNESS. (INTERIOR ONLY)

3. MEMBRANE ROOFING

MATERIALS: PROVIDE DURO-LAST ROOFING AND BASE FLASHING AS MANUFACTURED BY DURO-LAST ROOFING SYSTEMS. PRODUCT AND INSTALLATION SHALL CONFORM TO MANUFACTURER'S SPECIFICATION AND CURRENT IRC WITH LOCAL AMENDMENTS (SEE G-001) CHAPTER 15 & TABLE 1507.102. REFER TO ROOF PLAN FOR ADDITIONAL INFORMATION.

INSTALLATION: ROOFING SHALL BE INSTALLED BY MANUFACTURER CERTIFIED INSTALLER. ROOFING SHALL BE INSTALLED OVER WOOD DECK OR INSULATED DECK, WHERE APPLICABLE. IN STRICT ACCORDANCE WITH THE MANUFACTURER'S LATEST RECOMMENDATIONS. PRIME ALL METAL FLASHING, ETC. THAT SHALL BE IN CONTACT WITH ROOFING MATERIALS.

WARRANTY: GENERAL CONTRACTOR SHALL FURNISH A FIFTEEN (15) YEAR, NO DOLLAR LIMIT (NDL), WARRANTY FOR THIS INSTALLATION.

4. FLASHING AND SHEET METAL

FURNISH AND INSTALL ALL FLASHING, SHEET METAL, PITCH POCKET PANS AND SCUPPERS NOT SPECIFICALLY DESCRIBED IN OTHER SECTIONS OF THESE SPECIFICATIONS, BUT REQUIRED TO PREVENT WATER PENETRATION THROUGH EXTERIOR BUILDING SHELL, INCLUDING FLASHING, CAPS, AND ROOF EQUIPMENT PLATFORM COVERS.

COMPLY WITH APPLICABLE RECOMMENDATIONS AND DETAILS OF THE "ARCHITECTURAL SHEET METAL MANUAL", BY SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION (SMACNA).

INSTALL SHEET METAL OVER A LAYER OF ROOFING FELT.

GALVANIZED IRON: SHEET METAL OR IRON SHALL BE A STANDARD BRAND OF OPEN-HEARTH, COPPER-BEARING STEEL, COPPER-MOLYBDENUM IRON, OR PURE IRON SHEETS. USE 24 GAUGE MINIMUM UNLESS OTHERWISE CALLED FOR ON THE DRAWINGS.

ZINC COATING: ALL GALVANIZED SHEETS SHALL HAVE A ZINC COATING APPLIED BY HOT-DIP PROCESS TO ALL SURFACES. ZINC COATING SHALL WEIGH NOT LESS THAN 1.14 OUNCES PER SQ. FT. NOR MORE THAN 1.1/2 OUNCES PER SQ. FT. OF SURFACES COVERED AND SHALL CONFORM WITH ASTM A-95.

5. ROOF ACCESSORIES

THE WORK OF THIS SECTION INCLUDES THE PROVIDING AND INSTALLING OF ACCESSORIES TO BE INSTALLED ON THE ROOF AND FLASHED TO PROVIDE A WATERTIGHT INSTALLATION.

ROOF HATCH: BILCO, TYPE "S-20", 2'-6" X 3'-0", GALVANIZED, BONDED FOR PAINTING.

6. CAULKING & SEALANTS

GENERAL BUILDING APPLICATIONS: FOR JOINTS WHERE MOVEMENT IS ANTICIPATED, USE A C. HORN HORNFLX (POLYSULFIDE) ONE COMPONENT SYSTEM IN THE COLOR WHICH MOST CLOSELY MATCHES THE ADJACENT SURFACES. SEALANT TO HAVE A SHORE "A" HARDNESS OF 20 TO 30.

FOR DRY JOINTS BETWEEN DISSIMILAR MATERIALS WHERE LITTLE MOVEMENT IS ANTICIPATED, USE A C. HORN HORNSEAL ELASTOMERIC CALK (BUTYL RUBBER) ONE COMPONENT SYSTEM IN THE COLOR WHICH MOST CLOSELY MATCHES ADJACENT SURFACES.

FOR GLAZING AND KITCHEN APPLICATIONS:
GENERAL ELECTRIC SILICONE CONSTRUCTION 1200 SEALANT.

FOR SHEET METAL FLASHING AND COPING:
GENERAL ELECTRIC SILPRUF SILICONE WEATHER PROOFING SEALANT.

THE GENERAL CONTRACTOR SHALL INCLUDE IN HIS WORK THE FOLLOWING: AFTER ALL EQUIPMENT AND WALL MATERIALS ARE INSTALLED, ALL JOINTS TO WALLS AND BASES SHALL BE SEALED WITH SILICONE SEALANT.

ALL INSIDE VERTICAL CERAMIC TILE CORNERS SHALL RECEIVE A TOOLED BEAD OF SILICONE SEALANT.

7. EIFS (EXTERIOR INSULATION AND FINISH SYSTEM)

WORK INCLUDED: ALL MATERIALS AND INSTALLATION OF AN EIFS SYSTEM.

DESIGN REQUIREMENTS: CONFORM IN ALL RESPECTS TO MANUFACTURER'S SPECIFICATIONS FOR MATERIALS AND INSTALLATION. REFER TO STG THERM SPECIFICATION FOR STG THERM E100 ESSENCE SYSTEM.

DRYVIT MAY BE SUBSTITUTED AS AN ALTERNATE EIFS MANUFACTURER IF APPROVED IN WRITING BY PANDA EXPRESS.

MEET ALL LOCAL BUILDING CODE REQUIREMENTS.

MOISTURE CONTROL: PREVENT ACCUMULATION OF WATER ON THE EIFS SYSTEM EITHER THROUGH PENETRATION OR LEAKAGE THROUGH THE WALL CONSTRUCTION. IN THE DESIGN AND INSTALLING OF THE ASSEMBLY, CONFORM WITH ALL DETAILS OF THE MANUFACTURER'S SPECIFICATIONS.

IMPACT RESISTANCE: PROVIDE STRAIGHTENED IMPACT RESISTANCE TO A MINIMUM HEIGHT OF 8'-0" ABOVE FINISH GRADE WHERE AREAS ACCESSIBLE TO PEDESTRIAN TRAFFIC AND OTHER AREAS EXPOSED TO ABNORMAL STRESS OR IMPACT. INDICATE THE AREAS WITH IMPACT RESISTANCE OTHER THAN "STANDARD" ON CONTRACT DRAWINGS.

COLOR SELECTION: AS SELECTED BY PANDA FROM MANUFACTURER'S STANDARD COLORS.

7. JOINTS: PER MANUFACTURER'S SPECIFICATION

8. GRADE CONDITION: DO NOT INSTALL EIFS BELOW GRADE.

9. PROJECTING ARCHITECTURAL FEATURES AND REVEALS: ALL TRIM AND PROJECTING ARCHITECTURAL FEATURES MUST HAVE A MINIMUM 1/2 SLOPE ALONG THE TOP SURFACE. ALL REVEALS MUST HAVE A MINIMUM 1/2 SLOPE ALONG THEIR BOTTOM SURFACE INCREASE SLOPE FOR NORTHERN CLIMATES TO PREVENT ACCUMULATION OF ICE/SNOW AND WATER ON SURFACE WHERE TRIM FEATURE OR BOTTOM SURFACE OF REVEAL PROJECTS MORE THAN 2 INCHES FROM THE FACE OF THE EIFS WALL PLANE. PROTECT THE TOP SURFACE WITH WATERPROOF BASE COAT. PERIODIC INSPECTIONS AND INCREASED MAINTENANCE MAY BE REQUIRED TO MAINTAIN SURFACE INTEGRITY OF EIFS ON WEATHER EXPOSED SLOPED SURFACES.

10. INSULATION THICKNESS: MINIMUM EPS INSULATION THICKNESS IS 1 1/2 INCH.

11. FIRE PROTECTION: REFER TO MANUFACTURER'S APPLICABLE CODE COMPLIANCE REPORT FOR LIMITATIONS THAT MAY APPLY.

C. QUALITY ASSURANCE:

1. MANUFACTURER REQUIREMENTS: MEMBER IN GOOD STANDING OF THE EIFS INDUSTRY MEMBERS ASSOCIATION, AND (IEIMA). SYSTEM MANUFACTURER FOR A MINIMUM OF TWENTY (20) YEARS, AND MANUFACTURING FACILITIES ISO 9001:2000 CERTIFIED QUALITY SYSTEM.

2. CONTRACTOR REQUIREMENTS: ENGAGED IN APPLICATION OF EIFS FOR A MINIMUM OF THREE (3) YEARS; AND EMPLOY SKILLED MECHANICS WHO ARE EXPERIENCED AND KNOWLEDGEABLE IN EIFS APPLICATION; AND DEMONSTRATE SUCCESSFUL COMPLETION OF MINIMUM OF THREE (3) PROJECTS OF SIMILAR SIZE AND COMPLEXITY TO THE SPECIFIED PROJECT.

3. INSULATION BOARD MANUFACTURER REQUIREMENTS: RECOGNIZED BY STG AS CAPABLE OF PRODUCING INSULATION BOARD; AND LISTED BY AN APPROVED AGENCY; LABEL INSULATION BOARD WITH INFORMATION REQUIRED BY STG, THE APPROVED LISTING AGENCY AND THE APPLICABLE BUILDING CODE.

4. INSPECTIONS: PROVIDE INDEPENDENT THIRD PARTY INSPECTION WHERE REQUIRED BY CODE OR CONTRACT DOCUMENTS CONDUCT INSPECTIONS IN ACCORDANCE WITH CODE REQUIREMENTS AND CONTRACT DOCUMENTS.

D. DELIVERY STORAGE AND HANDLING: AS SPECIFIED BY MANUFACTURER.

E. COORDINATION: THE WORK IN THIS SECTION REQUIRES CLOSE COORDINATION WITH RELATED SECTIONS AND TRADES.

1. PROVIDE SITE GRADING SUCH THAT EIFS TERMINATES ABOVE FINISHED GRADE A MINIMUM OF 6 INCHES (152MM) OR AS REQUIRED BY CODE.

2. PROVIDE PROTECTION OF ROUGH OPENINGS BEFORE INSTALLING WINDOWS, DOORS AND OTHER PENETRATIONS THROUGH THE WALL AND PROVIDE SILL FLASHING.

3. INSTALL WINDOW AND DOOR HEAD FLASHING IMMEDIATELY AFTER WINDOWS AND DOORS ARE INSTALLED.

4. INSTALL DIVERTER FLASHING WHEREVER WATER CAN ENTER THE WALL ASSEMBLY TO DIRECT WATER TO THE EXTERIOR.

5. INSTALL COPINGS AND SEALANT IMMEDIATELY AFTER INSTALLATION OF THE EIFS SYSTEM AND WHEN EIFS COATINGS ARE DRY.

6. ATTACH PENETRATIONS THROUGH EIFS TO STRUCTURAL SUPPORT AND PROVIDE WATER TIGHT SEAL AT PENETRATIONS.

F. PRODUCTS: PROVIDE EIFS SYSTEM AND ACCESSORIES FROM SINGLE SOURCE 1. MANUFACTURER OR APPROVED SUPPLIER. THE FOLLOWING ARE ACCEPTABLE MANUFACTURERS' STO CORP. EIFS, OTHER MANUFACTURER IF APPROVED IN WRITING BY PANDA.

2. INSULATION BOARD: NOMINAL 1.0 LB/FT³ (16 KG/M³) EXPANDED POLYSTYRENE (EPS) INSULATION BOARD IN COMPLIANCE WITH ASTM E2430 AND ASTM C578 TYPE 1 REQUIREMENTS.

3. BASE COAT AS SPECIFIED BY MANUFACTURER.

4. REINFORCING MESHES AS SPECIFIED BY MANUFACTURER.

5. FINISH COAT: STG ESSENCE DPR FINISH, ACRYLIC BASED TEXTURED WALL COATING WITH GRADED MARBLE AGGREGATE AND DIRT PICK-UP RESISTANCE TECHNOLOGY.

G. EXECUTION:

1. INSTALLATION: INSTALL EIFS IN COMPLIANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.

2. PROTECTION: PROVIDE PROTECTION OF INSTALLED MATERIALS FROM WATER INFILTRATION INTO OR BEHIND THEM. PROVIDE PROTECTION OF INSTALLED MATERIALS FROM DUST, DIRT, PRECIPITATION, FREEZING AND CONTINUOUS HIGH HUMIDITY UNTIL THEY ARE FULLY DRY.

8. COMPOSITE DECKING (CD-1)

A. SECTION INCLUDES: COMPOSITE DECKING AND COMPOSITE WOOD PRODUCTS (FIBERON "HORIZON" SERIES).

B. REFERENCES:

- 1. ASTM D-7032-04. STANDARD SPECIFICATIONS FOR ESTABLISHING PERFORMANCE RATINGS FOR WOOD-PLASTIC COMPOSITE DECK BOARDS AND GUARDRAIL SYSTEMS, ASTM INTERNATIONAL.
- 2. ASTM D-7031-04. STANDARD GUIDE FOR EVALUATING MECHANICAL AND PHYSICAL PROPERTIES OF WOOD-PLASTIC COMPOSITE PRODUCTS, ASTM INTERNATIONAL.
- 3. ASTM E 844-01. TEST METHOD FOR SINGLE BURST CHARACTERISTICS OF BUILDING MATERIALS, ASTM INTERNATIONAL.
- 4. ASTM D 570. WATER ABSORPTION OF PLASTICS.
- 5. ASTM D 1761. MECHANICAL PROPERTIES IN TENSION.
- 6. ASTM D 4411. TEST METHOD FOR WOOD PRESERVATIVE LABORATORY SOLBLOK CULTURE.
- 7. ASTM C 177. STANDARD TEST METHOD FOR STEADY STATE HEAT FLUX MEASUREMENTS AND THERMAL TRANSMISSION PROPERTIES BY MEANS OF THE GUARDED HOT-PLAT APPARATUS.

C. DESIGN / PERFORMANCE REQUIREMENTS:
STRUCTURAL PERFORMANCE: UNIFORM LIVE LOAD - 100PSF
FIRE-TEST RESPONSE CHARACTERISTICS PER ASTM E-84

D. SUBMITTALS: PRODUCT DATA SHEET INDICATING SIZE, PROFILES, SURFACE STRENGTH AND PERFORMANCE CHARACTERISTICS. G. C. SHALL SUBMIT SAMPLES: FOR EACH PRODUCT SPECIFIED, ONE SAMPLE REPRESENTING ACTUAL PRODUCT SIZE, COLOR, AND FINISH.

E. DELIVERY, STORAGE AND HANDLING:

- 1. STORE FIBERON PRODUCTS ON A FLAT AND LEVEL SURFACE. ADJUST SUPPORT BLOCKS AS REQUIRED.
- 2. SUPPORT FIBERON BUNDLES ON SUPPLIED DUNNAGE.
- 3. WHEN STACKING BUNDLES, SUPPORTS SHOULD START AT EACH END AND BE SPACED NO MORE THAN 2 FEET O.C. SUPPORTS SHOULD ALIGN VERTICALLY.
- 4. DO NOT STACK HIGHER THAN 4 BUNDLES OR 8' HIGH.
- 5. KEEP MATERIAL COVERED AND PROTECTED FROM THE WEATHER, ALLOWING ADEQUATE VENTILATION TO MINIMIZE MOISTURE AND CONDENSATION.

F. WARRANTY: PROVIDE MANUFACTURER'S WARRANTY AGAINST DECAY, ROT, SPLITTING, CHECKING, SPLINTERING, FUNGAL DAMAGE, TERMITE DAMAGE AND COLOR DEGRADATION, FADING OR STAINING FOR A PERIOD OF 10 YEARS.

G. MANUFACTURER: CONTRACT DOCUMENTS ARE BASED UPON THE "HORIZON" PRODUCT LINE AS MANUFACTURED BY FIBERON COMPANY.

H. APPLICATIONS / SCOPE: WOOD-PLASTIC COMPOSITE LUMBER, CONSISTING OF RECYCLED LINEAR LOW DENSITY POLYETHYLENE (LLDPE) AND RECYCLED WOOD. PRODUCT IS EXTRUDED INTO BOARDS 1" x 5.5", 20' IN LENGTH, IN COLORS AS SPECIFIED ON CONSTRUCTION DRAWINGS. INSTALL IN PATTERN AS SHOWN ON DRAWINGS.

I. INSTALLATION: INSTALL ONLY WITH INSTALLATION MATERIALS & FASTENERS AS MANUFACTURED BY FIBERON. INSTALL WITH CONCEALED FASTENER SYSTEM (PHANTOM GT/EC); ENSURE ENTIRE ASSEMBLY IS AS APPROVED BY FIBERON. ALL CUTTING, DRILLING, AND ROUTING SHALL BE WITH CARBIDE TIPPED BLADES.

L. CLEANING: FINAL CLEAN COMPOSITE DECKING SPECIFICALLY PER MANUFACTURER'S INSTRUCTION. REMOVE CONSTRUCTION DEBRIS FROM PROJECT SITE AND LEGALLY DISPOSE OFF SITE.

9. VAPOR BARRIER AT EIFS

ALL EXTERIOR SHEATHING SHOWN IN DRAWINGS CALLED OUT TO RECEIVE "WRB" (WATER RESISTIVE BARRIER) OR VAPOR BARRIER SHALL RECEIVE THE FOLLOWING:

MANUFACTURER: STO CORPORATION (www.stocorp.com)

SPECIFICATION: STO GUARD WITH GOLD COAT A1000G

SUBSTITUTIONS: NOT ALLOWED

INSTALLATION: INSTALL PER MANUFACTURER'S INSTRUCTIONS/SPECIFICATIONS

10. WATER PROOFING MEMBRANE BEHIND COMPOSITE DECKING

ALL EXTERIOR SHEATHING SHOWN IN DRAWINGS CALLED OUT TO RECEIVE "WATER PROOFING" LOCATED SPECIFICALLY BEHIND ALL COMPOSITE WOOD DECKING SIDING ("PRIMARY LAYER" PER SHEET A-201) SHALL RECEIVE THE FOLLOWING:

MANUFACTURER: BASF (www.master-builders-solutions.basf.us/en-us/products/masterseal/1991)

SPECIFICATION: MASTERSEAL HLM 5000

SUBSTITUTIONS: NOT ALLOWED

INSTALLATION: INSTALL PER MANUFACTURER'S INSTRUCTIONS/SPECIFICATIONS - REF. TO CUT SHEET BELOW

BASF We create chemistry Technical Data Guide

7/27/14 20 Field Applied Waterproofing

MasterSeal® HLM 5000 Liquid, cold-applied elastomeric waterproofing membrane system

FORMERLY: S200500127 0207 0209

USE	DESCRIPTION	UNITS
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000 is a cold-applied, elastomeric waterproofing membrane for use on both grade and between-slab applications. It is available in four grades.	
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-11 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-11 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-12 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-12 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-13 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-13 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-14 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-14 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-15 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-15 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-16 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-16 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-17 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-17 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-18 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-18 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-19 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-19 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-20 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-20 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-21 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-21 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-22 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-22 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-23 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-23 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-24 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-24 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-25 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-25 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-26 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-26 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-27 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-27 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-28 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-28 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-29 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-29 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-30 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-30 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-31 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-31 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-32 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-32 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-33 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-33 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-34 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-34 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-35 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-35 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-36 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-36 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-37 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-37 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-38 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-38 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-39 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-39 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-40 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-40 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-41 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-41 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-42 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-42 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-43 (100 sq ft / 9.3 m ²)	MasterSeal HLM 5000-43 (100 sq ft / 9.3 m ²)
Roofing: 20' x 36" x 1/4" (508 mm x 914 mm x 6 mm) (100 sq ft / 9.3 m ²		