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TK-HYDROMAX®2001 SB DAMPPROOF COATING, TK-HYDROMAX®2002 SB FOUNDATION WATERPROOF COATING and TK-HYDROMAX®2003 WB WATERPROOF COATING

CSI Section:
07 11 00 Dampproofing
07 14 00 Fluid-Applied Waterproofing

1.0 RECOGNITION

TK-HydroMax®2001 SB Dampproof Coating, TK-HydroMax®2002 SB Foundation Waterproof Coating and TK-HydroMax®2003 WB Foundation Waterproof Coating recognized in this report have been evaluated for use as exterior, below grade dampproofing and waterproofing coatings. The products decay resistance, water penetration resistance, durability, adhesion, hydrostatic pressure, and temperature performance were evaluated for compliance with the following codes and regulations:

- 2015, 2012, 2009 and 2006 International Building Code® (IBC)
- 2015, 2012, 2009 and 2006 International Residential Code® (IRC)

2.0 LIMITATIONS

Use of the TK-HydroMax®2001 SB, TK-HydroMax®2002 SB and TK-HydroMax®2003 WB coatings recognized in this report is subject to the following limitations:

2.1 TK-HydroMax®2001 SB TK-HydroMax®2002 SB and TK-HydroMax®2003 WB coatings shall be applied in accordance with the applicable code, the manufacturer's instructions, and this report. In the event of a conflict, the more restrictive governs.

2.2 A subsurface soil investigation of the groundwater level at the construction site shall be performed to verify the nonexistence of hydrostatic pressure for dampproofing coatings.

3.0 PRODUCT USE

3.1 General: TK-HydroMax®2001 SB Dampproof Coating, TK-HydroMax®2002 SB Foundation Waterproof Coating and TK-HydroMax®2003 WB Foundation Waterproof Coating are liquid applied membranes used on concrete masonry unit and concrete foundation walls for below-grade construction. The damp proofing membranes are alternative materials to those described in IBC Section 1805.2.2 (2006 IBC Section 1807.2.2) and Section R406.1 of the IRC. The membranes are also alternatives to waterproofing materials as described in IBC Section 1805.3.2 (2006 IBC Section 1807.3.2) and Section R406.2 of the IRC. The coatings may also be used in Type I, II, III or IV construction when installed in accordance with Section 3.3.3 of this report.

3.2 Design: TK-HydroMax®2001 SB, TK-HydroMax®2002 SB and TK-HydroMax®2003 WB coatings shall be applied in accordance with this report and the manufacturer's published installation instructions. The manufacturer's installation instructions shall be available at the jobsite. Where conflicts occur, the more restrictive shall govern.

3.3 Installation:

3.3.1 Installation of TK-HydroMax®2001 SB Dampproof Coating: TK-HydroMax®2001 SB Dampproof Coating shall be applied to the exterior of precast concrete foundation walls, poured in place concrete foundation walls or concrete masonry unit construction. Before and during coating application the substrate surfaces shall be clean, dry, smooth, and free of voids, dirt, grease, oil, loose debris, protrusions, coarse aggregate, frost and all bond breakers. Holes and recesses resulting from the removal of form ties shall be sealed with a fast-setting cementitious patch material or other approved methods or materials before the application of the coating.

The coating shall be applied at an application rate of 45 to 63 ft²/gal (1.10 to 1.55 m²/L). The coating may be spray, brush or roller applied in one coat to a minimum thickness of 25 to 36 mils (0.64 to 0.91 mm) wet film [10 to 13 mils (0.25 to 0.33 mm) dry film].

The ambient air temperature during application and curing of the coating shall be in the range of 0°F to 100°F (18°C to 38°C).

Control joints shall be sprayed with the coating. Once cured, apply TK CLIMATE FLASH or an approved Bituthene self-adhered, rubberized asphalt waterproofing sheet membrane that extends 1.5 feet (0.46 m) on both sides of the control joint that have been treated with a backer rod.

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with IBC Section 104.11. This document shall only be reproduced in its entirety.





The wall can be backfilled once the coating is cured. No protection boards are required if backfilled with granular material with no large or frozen portions that will puncture the coating.

3.3.2 Installation of TK-HydroMax®2002 SB Foundation Waterproof Coating: TK-HydroMax®2002 SB Foundation Waterproof Coating shall be applied to the exterior of precast concrete foundation walls, poured in place concrete foundation walls or concrete masonry unit construction. Before and during coating application the substrate surfaces shall be clean, dry, smooth, and free of voids, dirt, grease, oil, loose debris, protrusions, coarse aggregate, frost and all bond breakers. Holes and recesses resulting from the removal of form ties shall be sealed with a fast-setting cementitious patch material or other approved methods or materials before the application of the coating. The coating shall be applied at an application rate of 50 to 55 ft²/gal (1.23 to 1.35 m²/L). The coating may be spray, brush or roller applied in one coat to a minimum thickness of 32 mils (0.81 mm) wet film [10 mils (0.25 mm) dry]. TK-HydroMax®2002 SB Foundation Waterproof Coating has a resistance to hydrostatic pressure of 7.5 psi (20.7 kPa) over a 1/16-inch-wide (1.6 mm) crack when calculated in accordance with ASTM D5385 and installed in accordance with Section 3.3.2 of this report.

The ambient air temperature during application and curing of the coating shall be in the range of 0°F to 100°F (-18°C to 38°C).

Control joints shall be sprayed with the coating. Once cured, apply TK CLIMATE FLASH or an approved Bituthene self-adhered, rubberized asphalt waterproofing sheet membrane that extends 1.5 feet (0.46 m) on both sides of the control joint that have been treated with a backer rod.

The wall can be backfilled once the coating is cured. No protection boards are required if backfilled with granular material with no large or frozen portions that will puncture the coating.

3.3.3 Installation of TK-HydroMax®2003 WB Foundation Waterproof Coating: TK-HydroMax®2003 WB Foundation Waterproof Coating shall be applied to the exterior of precast concrete foundation walls, poured in place concrete foundation walls or masonry unit construction. Before and during coating application the substrate surfaces shall be clean, dry, smooth, and free of voids, dirt, grease, oil, loose debris, protrusions, coarse aggregate, frost and all bond breakers. Holes and recesses resulting from the removal of form ties shall be sealed with a fast-setting cementitious patch material or other approved methods or materials, before the application of the coating. The coating shall be applied at an application rate of 32 ft²/gal (0.78 m²/L). The coating may be spray, brush or roller applied in one coat to a minimum thickness of 50 mils (1.27 mm) wet film. TK-

HydroMax®2003 WB Foundation Waterproof Coating has a resistance to hydrostatic pressure of 22.5 psi (155 kPa) over a 1/16-inch-wide (1.6 mm) crack when calculated in accordance with ASTM D5385 and installed in accordance with Section 3.3.3 of this report.

The ambient air temperature during application and curing of the coating shall be in the range of 40°F to 100°F (4.4°C to 38°C).

Control joints shall be sprayed with the coating. Once cured, apply TK CLIMATE FLASH or an approved Bituthene self-adhered, rubberized asphalt waterproofing Membrane sheet membrane that extends 1.5 feet (0.46 m) on both sides of the control joint that have been treated with a backer rod.

The wall can be backfilled once the coating is cured. No protection boards are required if backfilled with granular material with no large or frozen portions that will puncture the coating.

3.3.3.1 Use of TK-HydroMax®2001 SB, TK-HydroMax®2002 SB or TK-HydroMax®2003 WB Foundation Waterproof Coating in Type I, II, III or IV Construction: TK-HydroMax®2001 SB, TK-HydroMax®2002 SB or TK-HydroMax®2003 WB coatings may be used in exterior walls of buildings of Type I, II, III or IV construction of any height in accordance with this section of this report and Section 1403.5 of the 2015 and 2012 IBC. Wall assemblies that comply with Section 1403.5 of the 2015 and 2012 IBC and this report may be used in exterior walls of building of Type I, II, III or IV construction of any height are described in Table 1 of this report.

TK-HydroMax®2001 SB, TK-HydroMax®2002 SB or TK-HydroMax®2003 WB coatings installed on above grade exterior walls are outside of the scope of this report. Use of the coatings on above grade exterior walls in approved construction assemblies shall be in accordance with a valid evaluation report from an accredited evaluation report provider verifying compliance with 2015 and 2012 IBC Section 1403.5. Qualified wall coverings or ultraviolet (UV) protective coating shall be provided by the manufacturer, based on the type of construction for the application.

4.0 PRODUCT DESCRIPTION

4.1 TK-HydroMax®2001 SB Dampproof Coating: TK-HydroMax®2001 SB Dampproof Coating is a solvent-based, fluid-applied coating. The coating is packaged in 55-gallon (208 L) drums and 5-gallon (18.9 L) pails. The coatings shall be stored in factory-sealed containers at the recommended temperatures of between 40°F to 100°F (4.4°C to 38°C), with a two-year shelf-life.

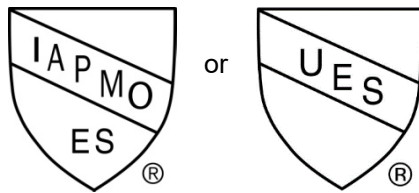


4.2 TK-HydroMax®2002 SB Foundation Waterproof Coating: TK-HydroMax®2002 SB Foundation Waterproof Coating is a solvent-based, fluid-applied, rubberized polymer coating. The coating is packaged in 55-gallon (208 L) drums and 5-gallon (18.9 L) pails. The coatings shall be stored in factory-sealed containers at the recommended temperatures between 40°F to 100°F (4.4°C to 38°C), with a two-year shelf-life.

4.3 TK-HydroMax®2003 WB Foundation Waterproof Coating: TK-HydroMax®2003 WB Foundation Waterproof Coating is a liquid, fluid-applied coating. The coating is packaged in 55-gallon (208 L) drums and 5-gallon (18.9 L) pails. The coatings shall be stored in factory-sealed containers at the recommended temperatures between 40°F to 100°F (4.4°C to 38°C), with a two-year shelf-life.

5.0 IDENTIFICATION

TK-HydroMax®2001 SB Dampproof Coating, TK-HydroMax®2002 SB Foundation Waterproof Coating and TK-HydroMax®2003 WB Foundation Waterproof Coating are identified with a label bearing the manufacturer's name (TK Products – A Division of Sierra Corporation), address, the IAPMO Uniform ES Mark of Conformity and the Uniform Evaluation Report Number (ER-338), and the name of the inspection agency (Quality Control Consultants). Either Mark of Conformity may be used as shown below:



IAPMO ER-338

6.0 SUBSTANTIATING DATA

6.1 Data in accordance with ICC-ES Acceptance Criteria for Cold, Liquid-Applied, Below-Grade, Exterior Damp proofing and Waterproofing Materials (AC29), approved June 2011 (editorially revised October 2014).

6.2 Reports of Flammability Characteristics testing in accordance with NFPA 285.

6.3 Test reports are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research carried out by IAPMO Uniform Evaluation Service on TK-HydroMax®2001 SB Dampproof Coating, TK-HydroMax®2002 SB Foundation Waterproof Coating and TK-HydroMax®2003 WB Foundation Waterproof Coating to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org



TABLE 1 – NFPA 285 Complying Exterior Wall Assemblies

Wall Component	Material Description
Base Wall System (BWS) Use either 1, 2 or 3	1 – Concrete wall 2 – Concrete masonry wall 3 – 1 layer of 5/8-inch thick Type X gypsum wallboard installed on the interior side of minimum 3 5/8-inch deep minimum No. 20 gauge thick steel studs spaced a maximum of 24 inches on center. Lateral bracing installed minimum every 4 feet vertically or as required.
Floor-line Firestopping¹	Wall stud cavities shall be filled at each floor line with minimum 4 pcf density mineral wool (e.g. Thermafiber) attached with Z-clips or equivalent.
Cavity Insulation Use either 1, 2, 3, or 4	1 – None 2 – Fiberglass batt insulation (faced or unfaced) 3 – Mineral wool insulation (faced or unfaced) 4 – Any noncombustible insulation
Exterior Sheathing Optional when using BWS 1 or 2	1 – None (for BWS 1 or 2 above) 2 – 5/8-inch thick Type X exterior type gypsum sheathing
Weather-resistive Barrier apply directly to exterior gypsum sheathing or to BWS 1 or 2 – use either 1, 2 or 3	1 – HydroMax [®] 2001 SB ³ 2 – HydroMax [®] 2002 SB ³ 3 – HydroMax [®] 2003 WB ³
Exterior Insulation	Extruded Polystyrene Foam insulation (XPS) - Type IV complying with ASTM C578, 1/2-inch minimum thickness, 3-inch maximum thickness. Joints shall have an asphalt, acrylic, or butyl-based flashing tape – 4-inch maximum width.
Exterior Veneer² Use either 1, 2, 3, 4 or 5	1 – Brick – standard nominal 4-inch thick clay brick installed with standard type veneer anchors spaced maximum of 24-inches on center vertically on each stud. Maximum 2-inch air gap between exterior insulation and brick. 2 – Concrete – 2-inch thick or greater. Maximum 2-inch air gap between exterior insulation and brick. 3 – Concrete Masonry Units – 4-inch thick minimum. Maximum 2-inch air gap between exterior insulation and brick. 4 – Stone Veneer – Minimum 2-inch thick Limestone or natural stone veneer or minimum 1 1/2 -inch thick cast artificial stone veneer installed without open joints 5 – Terracotta Cladding – Minimum 1/4-inch thick terracotta cladding installed without open joints.
Special Conditions	The header treatment shown in Figure 1 of this report shall be used for all window and door openings in the wall.

SI: 1 inch = 25.4 mm; 1 pcf = 16.0 kg/m³; 1 Btu/ft² = 0.01128 mJ/m²

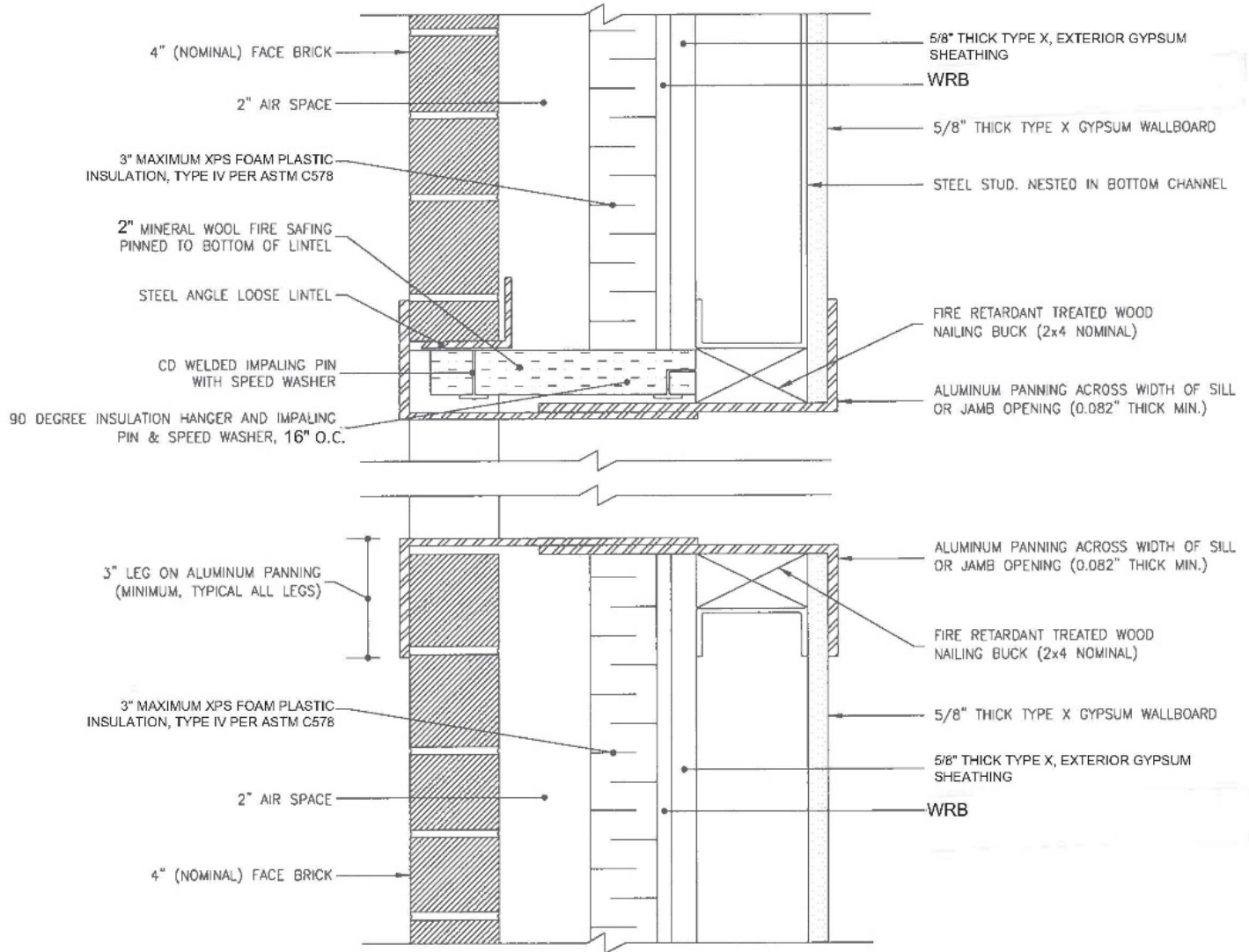
¹ Fire blocking per Section 718 of the 2012 IBC and thermal barrier material requirements per Section 2603.4 of the 2012 IBC shall be met for Base Wall Systems 1 and 2, as required by specific wall construction details when a combustible concealed space is created on interior side of exterior wall assembly.

² Exterior wall coverings shall be installed in accordance with the manufacturer’s installation instructions and shall comply with the provisions of Chapter 14 of the IBC and Chapter 7 of the IRC, as applicable.

³ Coating shall be installed 25 mil wet (22 mil dry), approximately 64 square feet per gallon.



STEEL STUD/BRICK VENEER – WINDOW HEAD DETAIL



STEEL STUD/BRICK VENEER – WINDOW SILL & JAMB DETAIL