Specifier: The purpose of this guide specification is to assist the specifier in correctly specifying EXACOR™ underlayment and its installation when used as flooring underlayment. The specifier needs to edit the guide specification to fit the needs of specific projects. Contact Huber Engineered Woods to assist in appropriate product selections. Throughout the guide specification, there are Specifier Notes to assist in the editing of the file. Red text in brackets indicates a selection needs to be made by the design professional.

EXACOR underlayment is intended to be used in place of wet-laid gypsum cement underlayment for interior flooring applications. The underlayment needs to be installed over wood structural panels. EXACOR can be used in floor/ceiling assemblies to meet STC/IIC requirements

SECTION 06 16 26

UNDERLAYMENT

(Huber Engineered Woods – EXACOR™ panels)

1.1 SECTION INCLUDES

A. Magnesium Oxide (MgO) Panels for use as flooring underlayment.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of underlayment product. Include manufacturer's technical data indicating performance properties.

B. Shop Drawings: Indicating location and extent of underlayment. Include details at joints, corners, and penetrations.

1.3 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: From ICC NTA for underlayment products

B. Warranty: Sample unexecuted copy of manufacturer warranty.

1.4 CLOSEOUT SUBMITTALS

A. Warranty: Executed copy of manufacturer warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Comply with manufacturer's written instructions for storage prior to installation.
   1. Store panels horizontally and fully supported.

1.6 WARRANTY

A. Manufacturer's Warranty: Manufacturer's standard form in which underlayment manufacturer agrees to repair or replace products that demonstrate deterioration or failure under normal use due to manufacturing defects within warranty period, when installed according to manufacturer's instructions.

   1. Warranty Period for Underlayment Products: 10 years from date of manufacture.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

Specifier: EXACOR Underlayment, as a product, is Fire-Resistant and can be used as a component of a tested Fire-Resistant Assembly. A similar assembly can be used to meet or exceed STC/IIC requirements for dwelling separation. Contact Huber Engineered Woods to obtain a current list of tested assemblies or refer to EXACOR Fire and Sound Assemblies handbook for assemblies that include finished floor options with STC, IIC and HIIC values.

Fire Resistance Assembly and Sound Rating information is for example only, coordinate project specific requirements, and coordinate with other specification sections to include each assembly component. Include of graphic assembly in drawings

A. Fire Resistance Assembly in accordance with UL263 Design No L528 (System No. 22)
   1. Rating: 1-Hour Fire Resistant Assembly

B. Bare Sound Rating:
   1. STC: 57
   2. IIC: 50
   3. HIIC: 51

2.2 BASIS OF DESIGN

A. EXACOR™ Underlayment by Huber Engineered Woods LLC, Charlotte NC; Phone: (800) 933-9220; Website: www.EXACOR.com

2.3 MAGNESIUM OXIDE UNDERLAYMENT PANELS

A. Physical Characteristics

Specifier: EXACOR Underlayment is available in both 1/2 and 5/8 inch thick panels with the 1/2 panel being the more common thickness.

   1. Thickness: **[1/2 inch (12 mm)] [5/8 inch (16 mm)]**
   2. Panel Size: 48 by 96 inches (1220 by 2440mm)
   3. Edge profile: Straight (square)

B. Fire-Resistant Characteristics in accordance with ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials

Specifier: Tested in accordance with ASTM E84, both panels exceed the minimum requirements. First options (0) are the EXACOR test result, second options (25/450) is the maximum allowable to be classified as Fire-Resistant. Select the desired value for specific project.

   1. Flame Spread: [**0**] [**25 maximum**]
   2. Smoke Developed: [**0**] [**450 maximum**]

C. Water Vapor Permeable:

Specifier: Tested in accordance with ASTM E96 for both Method B and Method A for Vapor Permeance and both exceed the minimum requirements. Select the desired value or test method for specific project.

   1. ASTM E96 – Standard Test Methods for Water Vapor Transmission
      a. **[Greater than or equal to 13 perms according to ASTM E96 Method B]**
      b. **[Greater than or equal to 5 perms accord to ASTM E96 Method A]**

D. Mold Resistance: No mold growth observed in accordance with ASTM G21 – Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.

2.4 FASTENERS

Specifier: Review local building code requirements for fastener size and spacing. EXACOR is fastened to the subfloor using BOTH adhesive and mechanical fasteners -

A. Fasteners: Size and type complying with manufacturer's written instructions for Project conditions and requirements of authorities having jurisdiction.

B. Nails: Ring shank nails with shank diameter of 0.113 inches by 1.5 inches long, minimum
   1. Corrosion Resistant: Minimum Hot-dipped galvanized

C. Underlayment Panel Adhesive: Polyurethane- or solvent- based product complying with ASTM D3498 or APA AFG-01.

2.5 WOOD STRUCTURAL PANEL SUBFLOORING

Specifier: Subflooring should be selected based on the required design loads with a minimum floor span rating of 24 inches on center and a performance category of 23/32. Subflooring is frequently included in Section 06 16 00 – but may be included elsewhere. Edit Section reference according to specific project, and appropriately specify structural wood subflooring.

A. Refer to Section 06 16 00 - Sheathing.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine wood structural panel subfloor installation to determine that work is ready to receive underlayment. Proceed with underlayment work once conditions meet requirements.
   1. Confirm ~~f~~Flatness and subfloor surface quality is within tolerances required by the underlayment manufacturer.

B. Subflooring to be free of dust, debris, standing water or other contaminants that would interfere with installation of EXACOR underlayment panels in accordance with manufacturer's recommendations.

3.2 MAGNESIUM OXIDE BOARD UNDERLAYMENT INSTALLATION

A. Underlayment Installation, General:
   1. Install underlayment boards in accordance with manufacturer's written instructions, requirements of applicable [**Evaluation Reports;**] [**Fire-Resistant Assembly*;*] [**Sound rated assembly**], and requirements of authorities having jurisdiction.
   2. Fully support underlayment panels on wood structural panel subflooring.
   3. Maintain designed expansion joints through underlayment. Do not bridge designed expansion joints in structural panel subfloor.

B. Underlayment Installation:
   1. Glue and nail to wood structural subflooring
   2. Apply adhesive in accordance with manufacturer's instructions.
      a. Place EXACOR underlayment with smooth side exposed. Butt underlayment tight to adjacent panels.
      b. Offset underlayment edges a minimum of 4 inches from structural subflooring edges.
      c. Ensure full contact between EXACOR underlayment and structural subflooring
   3. Mechanically fasten underlayment board
      a. Space Fasteners: 12 inches on center
      b. Locate fasteners 1/2 inches from board edges and 2 inches from panel corners

c. Fasten underlayment to subfloor.
d. Ensure fasteners sit flush or slightly below panel surface,

3.3 PROTECTION AND REPAIR

A. Protect exposed board surfaces from damage due to high construction traffic and concentrated loads during construction.

B. Patch small gaps (less than 2 sq inches) and divots in underlayment with elastomeric patching compound

C. Where large repairs are required, cut out damaged area and replace with piece of underlayment, installing in same manner as initial installation. Apply patching compound to transition between board and patch.

3.4 PREPARATION OF FINISH FLOOR COVERINGS

Specifier: Floor flatness requirements may vary depending on type of flooring. Identify project specific requirements for flooring materials and include in each finish section affected by Underlayment Section. Wording of this Preparation Article can be included in each associated finish Section.

A. Remove dust, dirt and debris from underlayment surface. Ensure panel surface is free from water, oil, grease and other contaminants.

B. Verify underlayment mechanical fasteners are flush with panel face or slightly below.

C. Identify and correct imperfections in the surface and repair damage as indicated above.

D. Proceed with specific finish preparation prior to installation of flooring finish.

END OF SECTION