

NFPA 285 ASSEMBLY GUIDE

ECOMAXCI® WALL SOLUTION

INSULATION FOR EXTERIOR WALL USE

Rmax ECOMAXci® FR Air Barrier pass the stringent NFPA 285 test within numerous assembly configurations and are approved for use in exterior walls of buildings of any height. This document briefly describes approved options, however, for more specific details, requirements and limitations, refer to third party reports. NFPA 285 is an assembly test and substitution of components is not allowed.

Approved Components for NFPA 285 Assemblies

WALL COMPONENT	MATERIAL OPTIONS		
Base Wall	<ul style="list-style-type: none"> Steel studs (3 5/8" 20GA min, 24" o.c. max) with Type X interior gypsum wallboard (1/2" min) Concrete or concrete masonry wall FRTW¹ studs (nominal 2x4 min, 24" o.c. max) with 5/8" Type X interior gypsum wallboard 		
Floor Line, Fire-Stopping	<ul style="list-style-type: none"> Mineral fiber insulation (4 pcf) FRTW¹ fire blocking 		
Cavity Insulation	<ul style="list-style-type: none"> None Mineral fiber or fiberglass (faced or unfaced) Any non-combustible insulation Various SPF (requires 5/8" exterior gypsum) 		
Exterior Sheathing	<ul style="list-style-type: none"> None (concrete or concrete masonry wall) None (4 1/2" max exterior insulation claddings 1-8) None (3" max exterior insulation claddings 9-17) Exterior gypsum sheathing (1/2" min) FRTW¹ structural panels (1/2" min) 		
Exterior Insulation/WRB	<ul style="list-style-type: none"> ECOMAXci® FR Air Barrier (4.5" max) with R-SEAL 3000 or R-SEAL 2000 LF over insulation joints (6" max) 		
FRTW Structural Panels Over Insulation	<ul style="list-style-type: none"> None FRTW¹ structural panels installed in accordance with applicable code requirements. May be pre-laminated to insulation. 		
Exterior Cladding Options 1-8	<table border="0"> <tr> <td style="vertical-align: top;"> <ol style="list-style-type: none"> Brick, standard 4" clay brick with max 2" air gap Stucco, cement plaster (3/4" min) and lath with optional secondary WRB (not asphaltic or self-adhered butyl) Limestone (2" min) Natural stone veneer (2" min) </td> <td style="vertical-align: top;"> <ol style="list-style-type: none"> Cast artificial stone veneer (1 1/2" min), per ICC-ES AC 51. Precast Concrete Panels (1 1/2" min) CMU (1 1/2" min) Terracotta cladding (1 1/4" min) </td> </tr> </table>	<ol style="list-style-type: none"> Brick, standard 4" clay brick with max 2" air gap Stucco, cement plaster (3/4" min) and lath with optional secondary WRB (not asphaltic or self-adhered butyl) Limestone (2" min) Natural stone veneer (2" min) 	<ol style="list-style-type: none"> Cast artificial stone veneer (1 1/2" min), per ICC-ES AC 51. Precast Concrete Panels (1 1/2" min) CMU (1 1/2" min) Terracotta cladding (1 1/4" min)
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Exterior Cladding Options 9-20	<table border="0"> <tr> <td style="vertical-align: top;"> <ol style="list-style-type: none"> Any MCM (aluminum, steel, copper, zinc) passing NFPA 285 with max 2 1/2" air gap Metal panel, uninsulated (aluminum, steel, copper, zinc) Fiber-cement siding, uninsulated Porcelain or ceramic tile Autoclaved-aerated-concrete (AAC) panels passing NFPA 285 Stone/aluminum honeycomb composite building panels passing NFPA 285 Natural stone veneer, adhered (1 1/4" min) </td> <td style="vertical-align: top;"> <ol style="list-style-type: none"> Thin (clay) brick, natural stone or artificial stone (min 3/4" thick) fully adhered with cementitious mortar (standard or polymer-modified) to min 1/2" thick cement backer board or gypsum sheathing with optional secondary WRB (not full coverage asphalt or self-adhered butyl) Stone Panels, Inc. StoneLite® panel system Glen-Gery Thin Tech® Elite Series or Tru-Brix® Tabs II Panel System with 1/2" bricks using Tabs Wall Adhesive FunderMax M.Look with max 1 1/2" air gap </td> </tr> </table>	<ol style="list-style-type: none"> Any MCM (aluminum, steel, copper, zinc) passing NFPA 285 with max 2 1/2" air gap Metal panel, uninsulated (aluminum, steel, copper, zinc) Fiber-cement siding, uninsulated Porcelain or ceramic tile Autoclaved-aerated-concrete (AAC) panels passing NFPA 285 Stone/aluminum honeycomb composite building panels passing NFPA 285 Natural stone veneer, adhered (1 1/4" min) 	<ol style="list-style-type: none"> Thin (clay) brick, natural stone or artificial stone (min 3/4" thick) fully adhered with cementitious mortar (standard or polymer-modified) to min 1/2" thick cement backer board or gypsum sheathing with optional secondary WRB (not full coverage asphalt or self-adhered butyl) Stone Panels, Inc. StoneLite® panel system Glen-Gery Thin Tech® Elite Series or Tru-Brix® Tabs II Panel System with 1/2" bricks using Tabs Wall Adhesive FunderMax M.Look with max 1 1/2" air gap
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Rough Openings	<p>Rough opening perimeters shall incorporate one of the following, spanning at a minimum from the interior edge of the cladding to the interior edge of the exterior insulation at the rough opening.</p> <ol style="list-style-type: none"> 0.08" (min.) aluminum (examples include window frame, flashing, lintel, c-channel) 20 GA. (min.) sheet steel (examples include window frame, flashing, lintel, c-channel) 1/2" (min.) 4pcf (min.) mineral wool 3/4" (min.) FRT wood buck 3/4" (min.) FRT plywood 5/8" (min.) type X GWB 1/4" (min.) fiber cement board 		
Flashing	<ul style="list-style-type: none"> R-SEAL 6000 or R-SEAL 2000 LF (12" max) 		

¹Fire Retardant Treated Wood (FRTW), where allowed, must comply with IBC Section 2303.2.

²No additional WRB over sheathing.

NOTE: For additional details of each component and confirmation of approved assembly, refer to DrJ Technical Evaluation Report, TER 1212-03 (www.rmax.com) or Fire Analysis Summary from Priest & Associates.