

Henry Air Barriers: NFPA 285 Exception #2

It is our understanding that, in accordance with the 2018 International Building Code (IBC) Section 1402.5 Vertical and Lateral Flame Propagation, the following exceptions are recognized where the exterior wall shall comply with NFPA 285.

2018 International Building Code (IBC) Section 1402.5 – Exceptions:

1. “Walls in which the water-resistive barrier is the only combustible component and the exterior wall has a wall covering of brick, concrete, stone, terra cotta, stucco or steel with the minimum thickness in accordance with Table 1404.2.”
2. “Walls in which the water-resistive barrier is the only combustible component and the water-resistive barrier has a peak heat release rate of less than 150 kW/m², a total heat release of less than 20 MJ/m² and an effective heat of combustion of less than 18 MJ/kg as determined in accordance with ASTM E1354 and has a flame spread index of 25 or less and a smoke-developed index of 450 or less as determined in accordance with ASTM E84 or UL 723. The ASTM E1354 test shall be conducted on specimens at the thickness intended for use, in the horizontal orientation and at an incident radiant heat flux of 50 kW/m².”
3. “Fenestration products, flashing of fenestration products, and water-resistive barrier flashing and accessories at other locations, including through wall flashing, shall not be considered part of the water-resistive barrier.”

Based on the excerpt above, wall assemblies that meet exceptions #1 or #2 do not require NFPA 285 compliance. Refer to the chart below for Henry water-resistive air barriers that meet the minimum requirements for exception #2, where the water-resistive barrier is the only combustible component.

Visit <https://henry.com/commercial/nfpa-285> for a complete list of Henry NFPA 285 compliant wall assemblies.

Testing standard	Minimum requirement for 2018 IBC Section 1402.5 exception #2	Air-Bloc 17MR	Air-Bloc All Weather STPE	Blueskin Metal Clad
ASTM E1354 - Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter*				
Peak heat release rate	Less than 150 kW/m ²	116 kW/m ²	113.2 kW/m ²	2.72 kW/m ²
Total heat release	Less than 20 MJ/m ²	3.05 MJ/m ²	11.35 MJ/m ²	0.09 MJ/m ²
Effective heat of combustion	Less than 18 MJ/kg	9.14 MJ/kg	10.76 MJ/kg	-6.75 MJ/kg**
ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials				
Flame spread index	25 or less	10	20	5
Smoke-developed index	450 or less	15	10	350

*Average of three burn tests at 50 kW/m² heat flux

**No combustion observed. Test terminated at 10:00 minutes due to heat release rate not exceeding 5kW/m² during duration of test.

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