Technical Bulletin

MASTER® BUILDERS SOLUTIONS

Platinum CI Stucco

Noncombustible (Types I, II, III, and IV) Construction

BACKGROUND

NFPA 285, also referred to as the Intermediate Scale Fire Test (ISMA), is a two story fire test (see Figure 1) that determines flammability characteristics of non-load bearing exterior wall assemblies such as those with a continuous insulation (CI) Stucco cladding that contain a combustible component such as foam plastic insulation (EPS, Neopor, XPS, etc.). NFPA 285 is used to show compliance with current (2012 International Building Code (IBC) section 2603.5.5) as well as prior versions of the code if the exterior walls are required to be of non-combustible construction such as the case with buildings classified as Type I, II, III, or IV construction.

CONTINUOUS INSULATED (CI) STUCCO SYSTEMS

Historically, many stucco systems have not incorporated CI and those that did were often times residential dwellings which are generally classified as combustible (Type V) construction. However, more recent Energy Codes and Standards such as the International Energy Conservation Codes (IECC) are driving the use of continuous insulation behind all cladding types. This includes stucco, as it provides a simple solution to comply with many of the new thermal insulation requirements applicable to residential, as well as commercial buildings. Given that many commercial buildings are classified as non combustible, there is growing interest and demand for CI Stucco Systems that have been tested per NFPA 285.

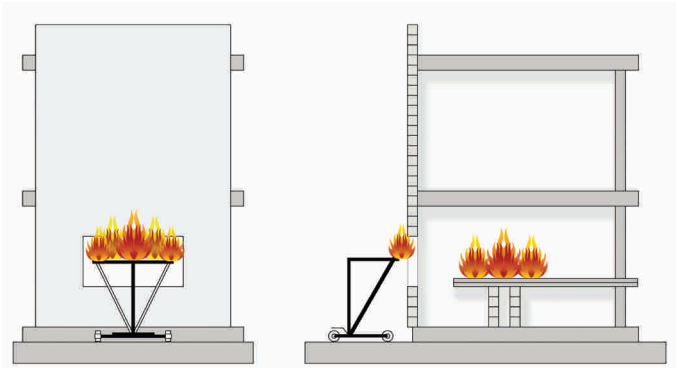
Figure 1 - NFPA 285 Test

PLATINUM CI STUCCO SYSTEM RESULTS

Table 1 lists the Platinum CI Stucco wall assembly components that have been tested, evaluated and meet the NFPA 285 criteria. Figures 2 & 3 (on page 2) show detailing/trim accessories used around windows to provide a finished appearance as well as to encapsulate the Neopor Rigid Insulation Board.

WALL ASSEMBLY COMPONENT	MATERIAL
Base Wall	Concrete, CMU, or 20 gauge 3-5/8" steel studs 16" or 24" oc with lateral bracing 4' vertically, minimum 1/2" thick regular or Type X gypsum
Floorline Firestop	4 PCF mineral wool in stud cavity at floorline attached with Z clips or equal
Cavity Insulation	None or any faced or unfaced non-combustible insulation
Exterior Sheathing	Minimum 1/2" regular or Type X gypsum sheathing
Air/Water-Resistive Barrier	Senershield-R or -VB, Finestop RA or VB, Tyvek StuccoWrap, Tyvek Commercial Wrap, WeatherMate or WeatherMate Plus, CertaWrap or No 15 Asphalt Felt (ASTM D 226 Type 1)
Exterior Continuous Insulation (CI)	1.45 PCF density Neopor (R 10)
Plaster Base (Lath)	PermaLath 1000, 2.5# or 3.4# Metal Lath, 1-1/2" 20 gauge wire or 1" 17 gauge wire
Stucco	Minimum 1/2" thick Master Builders Solutions Stuccobase or minimum 3/4" ASTM C 926 Stucco
Finish Coat	Master Builders Solutions Finish

Table 1 - NFPA 285 Assembly Components



Trim Accessories AMICO CI Weep Trac at window head (PVC or galvanized metal)

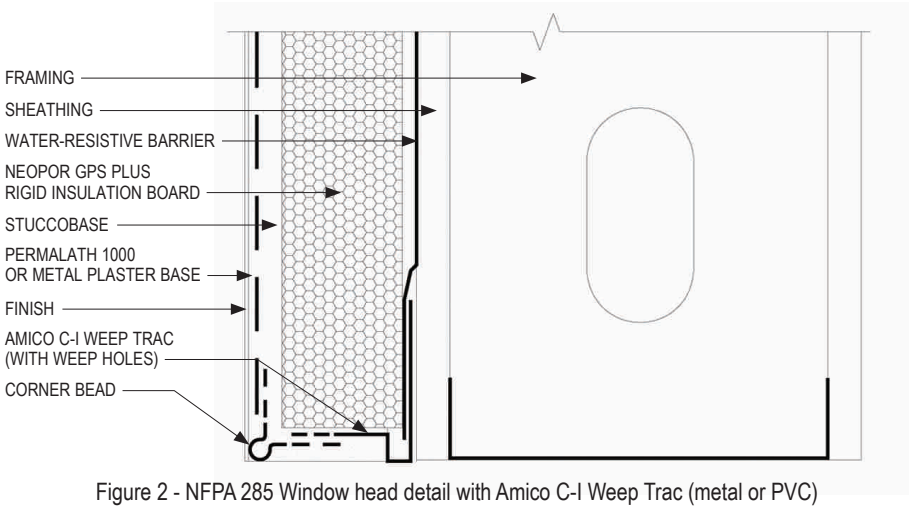


Figure 2 - NFPA 285 Window head detail with Amico C-I Weep Trac (metal or PVC)

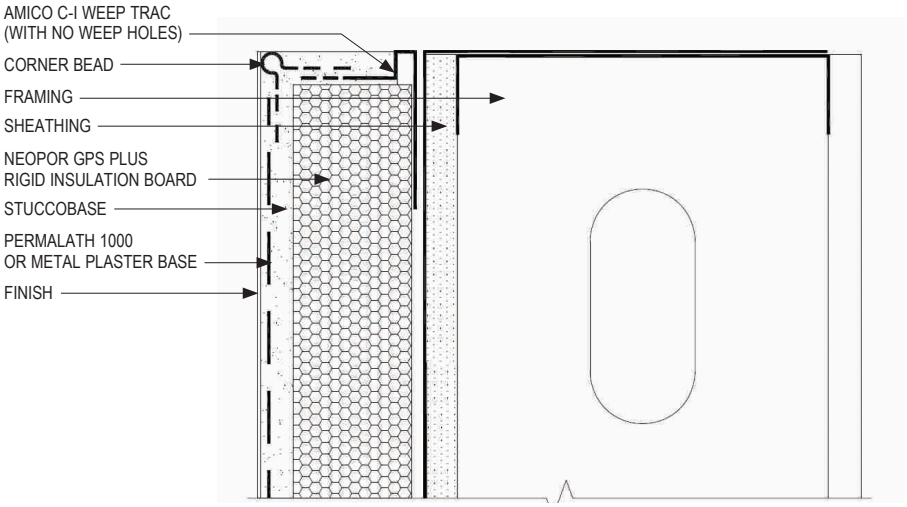


Figure 3 - NFPA 285 Window sill/jamb detail with Amico C-I Weep Trac (metal or PVC)

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