EnergyShield® XR
Continuous Insulation

NFPA 285 Assembly Guide Summary

Atlas EnergyShield XR is compliant within numerous wall assemblies in accordance with the acceptance criteria of NFPA 825 and is approved for use in exterior walls of buildings of any height. This document summarizes approved wall design options only. Specific details, requirements and limitations must be followed as described in DrJ TER 1306-03.

WALL COMPONENT	MATERIALS
Base Wall	• Concrete Wall (1" min.) • Steel Studs (3 ⅝" 20 ga. min.) with ⅝" Type X gypsum wallboard on interior • FRTW studs (24" o.c. max.) 24" o.c. max. with ⅝" Type X gypsum wallboard on interior
Floor Line Fire-Stopping	• None • Mineral fiber insulation (4" thick, 4 pcf) • 1 ½" FRTW[1]
Cavity Insulation	• None • Any non-combustible insulation per ASTM E136 • Any mineral fiber or fiberglass insulation (faced or unfaced) • Various SPF[2] in Group 1
Exterior Sheathing	1. None 2. Exterior type gypsum sheathing (½" min.) 3. 2" precast concrete panels attached to structural elements 4. Georgia Pacific DensElement sheathing (½" min.)[4] 5. USG Securock ExoAir 430 Panel[4] 6. NexGen Maxterra MgO (12 mm min.)[5]
WRB Behind Exterior Insulation	• None • Any WRB in Group 2
Cladding Attachment System when required	• Any metallic Z-girt • SMARTci – GreenGirt (horizontal) • Armatherm FRR (horizontal) • Knight Wall ThermaZee • Strongirt (horizontal) • SFS NH3 (horizontal) • Cascadia Clip (horizontal)
Exterior Insulation	• EnergyShield XR (4" max.)
WRB Over Exterior Insulation	• None • Seal joints and penetrations of exterior insulation[6] • Any WRB in Group 3
Exterior Cladding 2-¼" max. air gap	1. Brick – nominal 4" clay brick or CMU veneer installed 24" o.c. max. tie spacing 2. Stucco – exterior cement plaster (¾" min.) and lath with optional secondary WRB (not asphaltic or self-adhered butyl) 3. Limestone (2" min.) 4. Natural stone (2" min.) 5. Cast artificial stone (1½" min.) per ICC-ES AC 51 6. Terracotta cladding (¼" min.) 7. Any ACM having successfully passed NFPA 285 8. Metal panel, uninsulated aluminum, steel, copper, or zinc 9. Fiber cement (¼ min.), uninsulated 10. Stone/aluminum honeycomb composite building panels having successfully passed NFPA 285 11. Autoclaved-aerated-concrete (AAC) panels (1 ½" min.) 12. Thin clay brick (¾" min.) fully adhered with cementitious mortar to ½" min. cement backer board or gypsum sheathing with optional secondary WRB (not full coverage asphaltic or self-adhered butyl) 13. Ceramic or porcelain tile mechanically attached (¼" min.) or bonded using non-combustible mortar adhesive (⅜" min.) to a ½" min. cement board or gypsum sheathing 14. One coat stucco 15. Cement board with EIFS coating and mesh (without EPS) 16. High Pressure Laminate[9]

GROUP 1 – SPRAY FOAM INSULATION[7]

- Icynene LD-C-50, MD-C-200, or MD-R-210 (5 ½" max.)
- SWD Urethane Quik-Shield 112 (6" max.)
- Gaco Western 183M or Western F1850 (3 ½" max.)
- Demilec Sealection 500 or HeatLok Soy 200 Plus (3 ⅝" max.)
- Bayer Bayseal (3" max.)
- Lapolla FoamLok FL 2000 (3" max.)
- BASF SprayTite 81206 or WallTite (US & US-NO) (3 ⅝" max.)
- BASF WallTite LWP (or Max, XL, Plus)

- Accella Foamsulate 220 (3 ⅝" max.)
- JM Corbond III (3 ⅝" max.)
- Carlisle SealTite PRO HFO, SealTite PRO Closed Cell, SealTite Pro One Zero, SealTite Pro Open Cell, SealTite Pro High Yield, SealTite Pro No Mix, SealTite Pro No Trim 21, SealTite Pro OCX
- Huntsman HeatLok HFO or HFO Pro
- Holcim Enverge EasySeal 5 or Enverge SucraSeal
- SWD Urethane Quick-Shield Goblin or Yeti

GROUP 2 – WRB BEHIND EXTERIOR INSULATION

- BASF Enershield HP or Enershield-I
- CCW 705, Fire Resist 705 VP, Fire Resist 705 FR-A, Fire Resist Barritech NP (or NP LT, VP, VP LT), Metal Clad 705FR, or Metal Clad 705FR LT
- Dow DefendAir 200 Low Temp or DefendAir 200 C
- Dryvit Backstop NT, Backstop NT Smooth, Backstop NT Spray, Backstop NT Texture, Backstop NTX Smooth, Backstop NTX Texture, or Backstop NT-VB)
- DuPont Tyvek, various per ESR 2375
- DuPont Tyvek Fluid Applied (0.8 mm)
- GE Momentive Elemax 2600
- GCP Perm-A-Barrier VPL LT, (or NPL 10, NPL, NPS, VPS, VPL, VPL 50RS, VPS 30, VPL 50) or Perm-A-Barrier Aluminum Wall Membrane
- Henry Air-Bloc 21FR, Air-Bloc 17MR, Air-Bloc 16MR, Blueskin SA, or Blueskin VP160
- Henry WeatherSmart, WeatherSmart Drainable, or WeatherSmart Commercial (previously Fortifiber)
- Hohmann & Barnard Enviro-Barrier, Enviro-Barrier VP, or X Barrier
- Jumpstart HWW-65A, HWW-65B, HWHP-80A, HWMP-90A, HWD2-72A, HWHPT-92A, or HWMPC-110A
- Parex WeatherSeal Spray and Roll On
- Prosoco R-Guard Spray Wrap, Spray Wrap MVP, R-Guard MVP, R-Guard VB, R-Guard Cat-5, or Cat-5 Rainscreen
- Sto Emerald Coat or Gold Coat

- STS Wall Guardian FW 100A
- Tremco ExoAir 230 (31.5 mils), ExoAir 130, or ExoAir 111
- Vaproshield Wrapshield SA or Revealshield SA
- WR Meadows Air-Shield LMP (Gray or Black), Air-Shield TMP, Air-Shield LSR, or Air-Shield SMP
- Soprema LM 204 VP, Sopraseal Stick VP, Sopraseal 1100T, or Soprasolin HD
- Siga Majvest 500 SA, Majvest 700 SOB, or Majvest 200
- Dorken Systems Delta-Stratus SA, Delta-Vent SA, Delta-Vent S, Delta-Vent S/Plus, Delta-Fassade S, Delta-Foxx/Plus, Delta-Maxx/Plus, or Delta Vent SA
- Pecora XL-Perm ULTRA VP, XL-Perm ULTRA NP, or ProPerm VP
- NaturaSeal NS-A-250LP or NS-A-250HP
- Master Wall Rollershield-RS
- Siplast WALLcontrol Modified Silicone VP Liquid AWB, WALLcontrol Reinforced Aluminum Butyl Adhered AWB, or WALLcontrol Monolith VP Adhered AWB
- FT Synthetics Block-Aide
- Sika SikaGard 535
- Kamak 321 K-NRG Seal VP
- Polyglass VertiWrap VPS (or NPS, VPL, VPL LT, NPL)
- PolyGuard Spray-N-Roll, Airlok Sheet 400 NP, Airlok Sheet UV400 NP, Airlok Flex VP, Stretch Flex, or FlexGuard

GROUP 3 – WRB OVER EXTERIOR INSULATION

- CCW Metal Clad 705FR, Fire Resist 705VP, Fire Resist Barritech NP (or NP-LT, VP, VP LT), or Metal Clad 705FR LT
- Dow Chemical DefendAir 200 Low Temp or DefendAir 200 C
- Dryvit Backstop NT, Backstop NT Smooth, Backstop NT Spray, Backstop NT Texture, Backstop NTX Smooth, Backstop NTX Texture
- GE Momentive SEC 2500 SilShield or SilShield SEC2600 AWB (or Elemax 2600)
- GCP Perm-a-Barrier NPS (or NPL, VPL, VPS, VPL LT), or Perm-a-Barrier wAluminum Wall Membrane
- Henry Air-Bloc 21FR, Air-Bloc 17MR, Blueskin VP160, Foilskin, or Metal Clad
- Henry WeatherSmart, WeatherSmart Drainable, or WeatherSmart Commercial (formally Fortifiber)
- Henry Jumbo Tex (up to 2 layers)[8]
- Jumpstart HWW-65A, HWW-65B, HWHP-80A, HWMP-90A, HWD2-72A, HWHPT-92A, or HWMPC-110A
- Parex WeatherSeal Spray and Roll On
- Prosoco R-Guard VB, R-Guard Cat-5, R-Guard Cat-5 Rainscreen, or Spraywrap MVP
- Sto EmeraldCoat
- Vaproshield Wrapshield SA or Vaproshield Revealshield SA

- Soprema Soprasolin HD
- Soprema Sopraseal Stick VP[3]
- Siga Majvest 500 SA[3], Majvest 700 SOB, or Majvest 200
- DuPont Tyvek, various per ESR 2375
- WR Meadows Air-Shield SMP
- Pecora XL-Perm Ultra VP, XL-Perm Ultra NP, or ProPerm VP
- Master Wall Rollershield-RS
- Siplast WALLcontrol Monolith VP Adhered AWB
- 3M 3015 or 3015VP
- Dorken Detla-Vent SA, Delta-Vent S or Delta-Vent S/Plus, Delta-Fassade S, Delta-Foxx/Plus, Delta-Maxx/Plus, or Delta Vent SA
- Karnak 321 K-NRG Seal VP
- Polyglass VertiWrap VPS or VertiWrap NPS
- PolyGuard Airlok Sheet UV400 NP, Airlok Flex VP, or FlexGuard

[1] Must comply with IBC Section 2302.2 and installed following code allowances for Type I-IV construction
[2] Requires floor line firestopping and ⅝" exterior gypsum sheathing
[3] Only with claddings 1-6
[4] No additional WRB over sheathing
[5] Can also be installed over exterior insulation
[6] EnergyShield XR is an approved WRB when installed properly per DrJ TER 2202-01
[7] Must reference DrJ TER 1306-03 for depth and sheathing requirements
[8] Only with cladding 2 at ¾" min. thick stucco and 3 ½" max.
[9] Must reference Table 4, Special Claddings in DrJ TER 1306-03

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