FAQs

2020 Florida Building Code, Energy Conservation

7th Edition Commercial [CE]

Question 1:

The 2020 Florida Building Code, Energy Conservation – Chapter 4 Commercial Energy has two compliance methods – Prescriptive and Performance-based. What is the difference?

Answer 1:

The Prescriptive requirements have pre-assigned minimums for each component of the building; the Performance-based allows customization and assigns values for each component. [The Prescriptive requirements are outlined under Section C402 and the Performance-based requirements are outlined under Section C407]

Question 2:

The 2020 Florida Building Code, Energy Conservation – Chapter 4 Commercial Energy Efficiency Prescriptive requirement is R-7.6ci minimum for mass walls in Climate Zone 2/Group R; does this mean my only option is to use insulation that is an R-7.6 continuous insulation or higher value?

Answer 2:

No – Option #A [Use U-Factor Method, under Section C402 Building Envelope Requirements; which requires an assembly with a U-factor equal or less than 0.123 for mass walls in Climate Zone 2/Group R; specified in Table C402.1.4]

- Install Fi-Foil's Flex Foam behind 1-1/2" or 1-5/8" metal framing, spaced 24" o.c. and VR Plus Shield reflective insulation (R-7.0/perforated version), as your 8" CMU masonry wall insulation.
- Use foam board (minimum R-1) behind 1-5/8" metal framing, spaced 24" o.c. and VR Plus Shield reflective insulation (R-7.0/perforated version), as your 8" CMU masonry wall insulation.*

No - Option #B

Use EnergyGauge Summit software or Florida Building Commission Approved (C407.4) software to meet Performance-based compliance under Section C407, and you can install Fi-Foil's AA2 Vapor Shield perforated version or M-Shield reflective insulation over 7/8" metal hat channel enclosed air space to achieve R-4.5 as your masonry wall insulation; as long as you meet the minimum energy performance requirements for the baseline commercial building. Or for a higher R-value install VR Plus Shield perforated version reflective insulation over 1-1/2" or 1-5/8" wood or metal framing to achieve an R-7.0.

Question 3:

Does Fi-Foil offer insulation that can be combined with other insulation materials to create a hybrid insulation system for masonry walls?

Answer 3:

Yes. For example, if you install a 3/4" foam board against the masonry block wall, then install 3/4" wood furring strips over the foam board, and staple Fi-Foil's AA2 Vapor Shield perforated version reflective insulation (R-4.1) to the face of the furring strip. The total combined insulation R-value for this hybrid insulation system, including R-4.0 foam board, will be R-8.1.

Question 4:

Can Fi-Foil reflective insulation be used to insulate metal framed masonry walls?

Answer 4:

Yes. As long as your whole wall assembly is designed to meet Assembly U-Factor, under Section C402 Building Envelope Requirements/Table C402.1.4, for example: U-value of 0.077 (Climate Zone 2/All Other) or U-value of 0.064 (Climate Zone 2/Group R). If you need assistance in calculating your metal framed wall assembly U-value, then please contact your local Fi-Foil sales representative or call 1-800-448-3401.

Question 5:

Do you have an insulation product for frame wall applications?

Answer 5:

Yes. Fi-Foil's HY-Fi perforated version reflective insulation combined with Open Cell (OC) or Closed Cell (CC) Spray Foam to create a high-performance solution for frame walls. HY-Fi with 2" of CC can achieve an R-21, and with 4" of OC can achieve an R-22.

Question 6:

What other Fi-Foil product options will help us meet the energy performance levels needed in our buildings?

Answer 6:

Fi-Foil's Radiant Shield Radiant Barrier installed as a radiant barrier or Fi-Foil's SkyFlex or SkyFlex VT installed as an air barrier. Contact your installing contractor or Fi-Foil for a suggested installing contractor. An Energy Rater can provide the updated EPI and or Blower Door Test results with either or both of these additions.

*Refer to "**Calculated U-values for VR+Shield Installed with Metal Framing – II",** by David W. Yarbrough, PhD, PE R&D Services – published 8/17/2016.