NVELOPE Technical Bulletin

Concrete and masonry (CMU) substrate fastener recommendations

Our NVELOPE thermally broken subframe systems can be installed over a variety of substrates provided the attachment of the brackets to the substrate is engineered to handle the vertical and horizontal loads transferred from the cladding and subframe system into the substrate. When fastening into concrete or masonry (CMU) substrates, anchor spacing becomes the limiting factor on which size and type of anchors can be used. A summary of these applications can be found below along with our recommendations on anchor size and type by substrate.

Concrete and Grouted CMU Substrate

Anchor Option #1 (recommended)
- Two (2) 1/4" diameter screw anchors
- NVELOPE bracket (6.5 mm slots): NV1, NV3, NH3

Anchor Option #2
- One (1) 3/8" diameter screw anchor
- NVELOPE bracket (11 mm slots): NV1, NV3- middle slot; NH3- top slot; NVF2F- slot behind tube rail

Un-Grouted CMU Substrate

Anchor Option #1 (recommended)
- One (1) 3/8" diameter screw anchor
- NVELOPE Bracket (11 mm slots): NV1, NV3 - middle slot; NH3 - top slot; NVF2F - slot behind tube rail

Anchor Option #2
- One (1)- 3/8" diameter threaded rod w/ epoxy adhesive
- NVELOPE Bracket (11 mm slots): NV1, NV3 - middle slot; NH3 - top slot; NVF2F - slot behind tube rail

NVF2F – concrete substrate

NV1 – CMU substrate

Note: The above recommendations should be used only as a guide to select the substrate attachment anchor size and type. Final design of subframe system and attachment to substrate must be completed by a qualified Engineer.

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