**5.10—Autoclaved Aerated Concrete**-

Autoclaved Aerated Concrete (AAC) products used in walls, floor and roof panels, and masonry are manufactured to comply with ASTM C1693 & C1691. These products have listed UL Standards for equivalent thickness in load bearing and non-loadbearing applications.

**5.10.1**  *AAC floor and roof assemblies—*shall be grouted and reinforced at the upper profile to provide structural integrity to the assembly as well as to seal the joints between slab units preventing fire or smoke migration to the floor above.

**5.10.2**  *AAC walls—*shall be joined with a layer of thin bed mortar that complies with the ASTM C 1660 Standard for Thin Bed Mortar. This layer of bond material is applied to the AAC vertical panels and masonry units and must meet the fire resistance requirements as listed in the UL assemblies and comply with ASTM E 119.

**5.10.1**  *Minimum thickness—*of AAC to achieve the required fire resistance rating are provided in Table 5.10.1a

Table 5.10.1a*—*Minimum Thickness of AAC to Achieve Necessary Fire Resistance Rating

|  |  |  |
| --- | --- | --- |
| **Element Type** | **Fire Resistance Rating (hr)** | **Minimum Thickness (in.)** |
| Block Wall*Load Bearing* | 4 | 6 |
| Block Wall*Non-Load Bearing* | 4 | 4 |
| 2 | 3 |
| Wall Panel*Load Bearing* | 4 | 6 |
| Wall Panel*Non-Load Bearing* | 4 | 6 |
| Wall PartitionNon-Load Bearing | 3 | 4 |
| Floor & Roof Panels | 4 | 6 |
| Steel ColumnProtection | 4 | 4 – block8 – panel |