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Seves Glass Block S.R.O.
Bilinská 782/42 Duchcov, 419 01, Czech Republic

Summary Report No. SGBI042921-110S

This report summarizes the fire resistance test of the 1919_13 F120 2hr. Rated Seves Glass Block Unit for Seves Glass Block S.R.O. The wall assembly was tested in accordance with *ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials.* A full report has been provided to the client (SGBI042921-110).

Test Specimens

A representative wall system was constructed and built under representative conditions of those applied in the field during construction in order to assess the materials, workmanship, and details such as dimensions of parts and all components in the assembly.

Block Units

The nominal 10-ft. 4-5/8-in. tall by 13-ft. 7-11/16-in. wide wall assembly consisted of 1919_13 F120 2hr. RATED SEVES GLASS BLOCK UNIT laid using a stack bond within the test frame. The stack bond is made up of rows of stretchers with each stretcher directly centered on the stretcher below it. All the joints run vertically down the wall, with the horizontal edge joints and vertical edge joints being continuous.

Mortar was placed at the bottom of the wall assembly and in every joint at a nominal thickness of ¼-in. thick. The mortar consisted of Lehigh Heidelberg Cement Group's Type S; white masonry cement mixed with crystalline silica per the manufacturer's specifications.

On top of the first course of glass blocks, 4-in. wide, Truss type, 9-gauge wire reinforcement was placed so not to overlap components. The wire reinforcement was installed between every other course after the first coarse and before the last course was installed. The mortar cured for a period of at least 28 days.

Sealant

At each end of the wall and on the top of the wall, Seves' expansion material was installed. The backer rod like material was ½-in. thick and was 4-in. wide. The expansion material was doubled up to fill the void between the end of the glass block wall and the test frame. Seves expansion material was also used in the same manner at the top of the wall to fill the void between the glass blocks and the test frame. The wall assembly was further sealed around the perimeter using 3M™ Fire Barrier Water Tight Sealant 1000 NS.

Summary and Conclusions

The non-loadbearing, symmetrical wall assembly described above did meet the Conditions of Acceptance of ASTM E119/UL 263/ CAN/ULC-S101 when exposed to the standard time-temperature curve. The average temperature of the unexposed face of the wall assembly did not exceed the temperature threshold of 250°F average temperature and the 325°F single point temperature threshold per ASTM E119. The glass block wall assembly withstood the fire exposure of ASTM E119 for a period of 120 minutes. A second, duplicate wall assembly was subjected to a hose stream test following a fire exposure of 1/2 the duration of the initial fire exposure test of 2-hr which resulted in no projection of water through the unexposed face. The wall assembly obtained a fire resistance rating of 120 minutes.

Please refer to ICC NTA, LLC Report #: SGBI042921-110 for full test details pertaining to the wall assembly described above.

For ICC NTA, LLC:

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