HUNTSMAN

BUILDING SOLUTIONS

Case Study

Basement Flooding

Date:
May 29, 2017

Location:
Montreal, Quebec, Canada

Construction Type:
Residential

Exterior plaster, 8" of concrete, 2.5" of Heatlok Soya, 2"x4" wood studs spaced 1" from the foundation wall, air space, 0.5" gypsum.

Product:
Heatlok Soya
Closed Cell Spray Foam Insulation

Situation

On May 22, 2017, following the river flooding in the spring, HBS visited a flooded basement with 4' of contaminated water (photo 1). The basement was insulated entirely with Heatlok Soya closed-cell spray foam. The purpose of this visit was to check the condition of the foam insulation after 5 days of immersion. The contaminated water was mixed with sewage and oil spillage.

Solution

Prior to the visit, the surface of all the walls had been washed and the basement had been cleaned with a pressure washer. Dehumidifiers and industrial fans had been in operation for 5 days (photo 2). In order to verify the effects of the flooding on the spray foam insulation, samples were taken on site for laboratory testing. Readings of the moisture content in the wood were made in several places (photo 3).

Even after being submerged for several days, the spray foam insulation was dry and showed no signs of deterioration. Water absorption and mold growth were not an issue. The uncovered wood dried with the help of dehumidifiers and fans. However, the portion of the wood studs embedded in the polyurethane were still moist.

Conclusion

The existing spray foam insulation may remain in place, but the drying of the wood must be facilitated with industrial equipment. It is important to thoroughly clean the joints between the wood structure and the floor to allow the wood to dry out as quickly as possible. The wood must reach a moisture content of less than 19% in order to allow the installation of finishing panels.

For more information, contact the Building Science Department at 877-5-HBSBSE / 877-542-7273.
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