



Fire-resistance of timber-concrete composite floor using laminated veneer lumber

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Abstract: There is a need to demonstrate how novel timber-concrete composite floors can span long distances and be a practical alternative to other traditional structural systems. Better understanding of the fire behaviour of these hybrid systems is essential. To achieve this, the fire-resistance of a timber-concrete composite floor assembly, using BC wood products, will be evaluated in accordance with CAN/ULC-S101 [2]. A 2 hr fire resistance rating will be targeted, as this is the current requirement in high-rise buildings for floor separations between occupancies. The structural behaviour of this type of system will also be assessed from conducting pull-out tests of the shear connectors. In conjunction with previous test data, the results of this test will be used to develop an analytical model to assess the structural and fire-resistance of timber-concrete composite floors. 301010618

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