The 2025 World Congress on
Advances in Structural Engineering and Mechanics (ASEM25)
BEXCO, Busan, Korea, August 11-14, 2025

Behavior of timber moment connections with GIR details

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ABSTRACT

Using moment-resisting frames with semi-rigid connection as the lateral load-transferring system in timber structures can minimize the installation on diagonal bracing or shear walls, and therefore allow for more opening and flexible architectural design. In order to achieve this, various types of timber connections have been suggested, and one of frequently utilized connection detail is to select a glued-in-rod detail. The connections are strengthened by installing steel rods inside the engineering timber section. This paper present a study of glued-in-rod connection for use in timber moment-resisting frame. Experiments were conducted to investigate the behavior of GIR timber connections. From the result of experiment using glued-in-rod detailed specimens, load-transferring mechanism of such connection are comprehensively investigated in terms of their influencing parameters on the structural design

ACKNOWLEDGMENT

This research was supported by the 2024 Korea Forestry Promotion Institute (KoFPI) grant. Project Number: RS-2024-00400727.

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