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# Wood-Concrete Composite Beams under Low-to-High Cycle Loading

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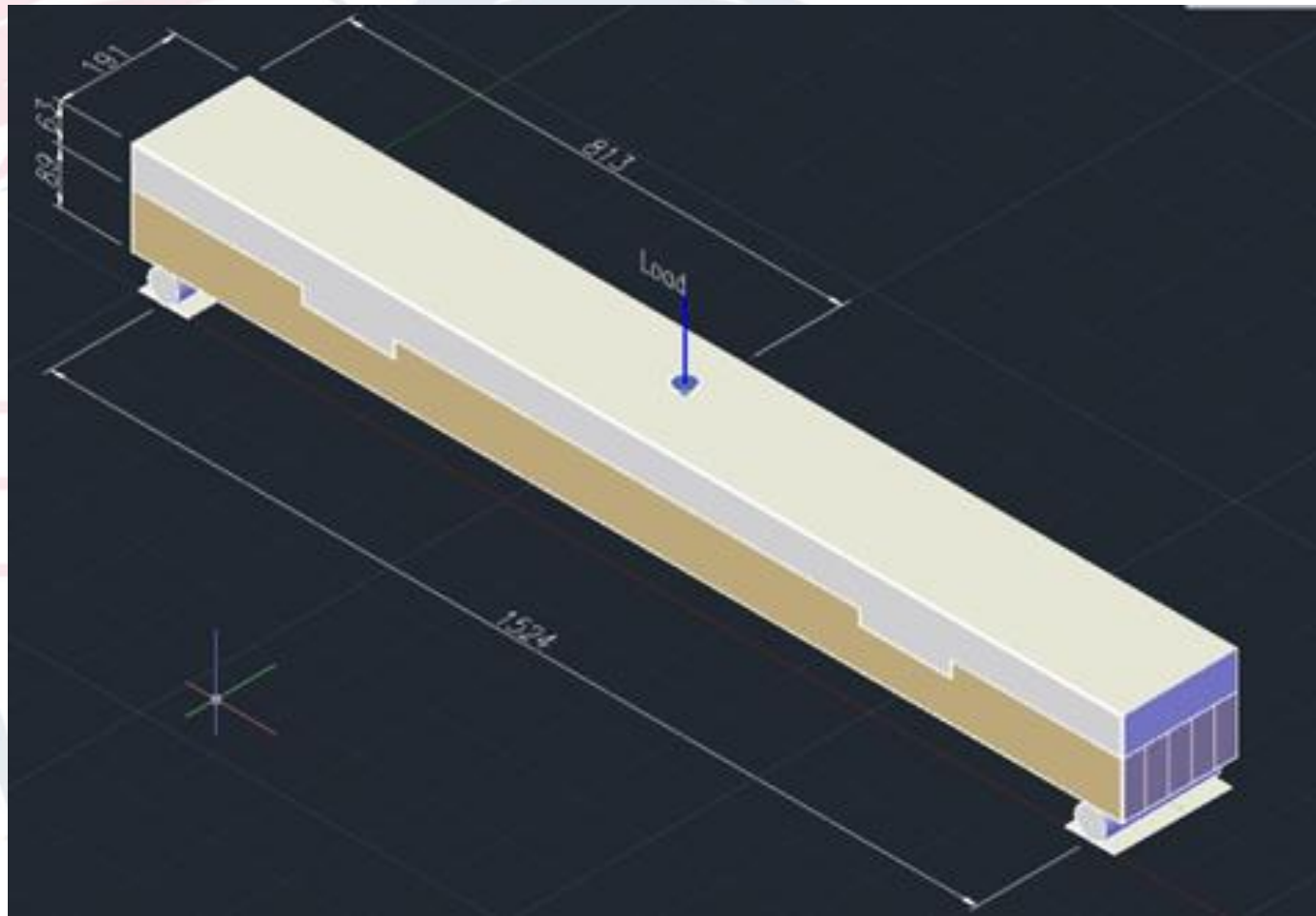
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# Specimen Configuration [mm]



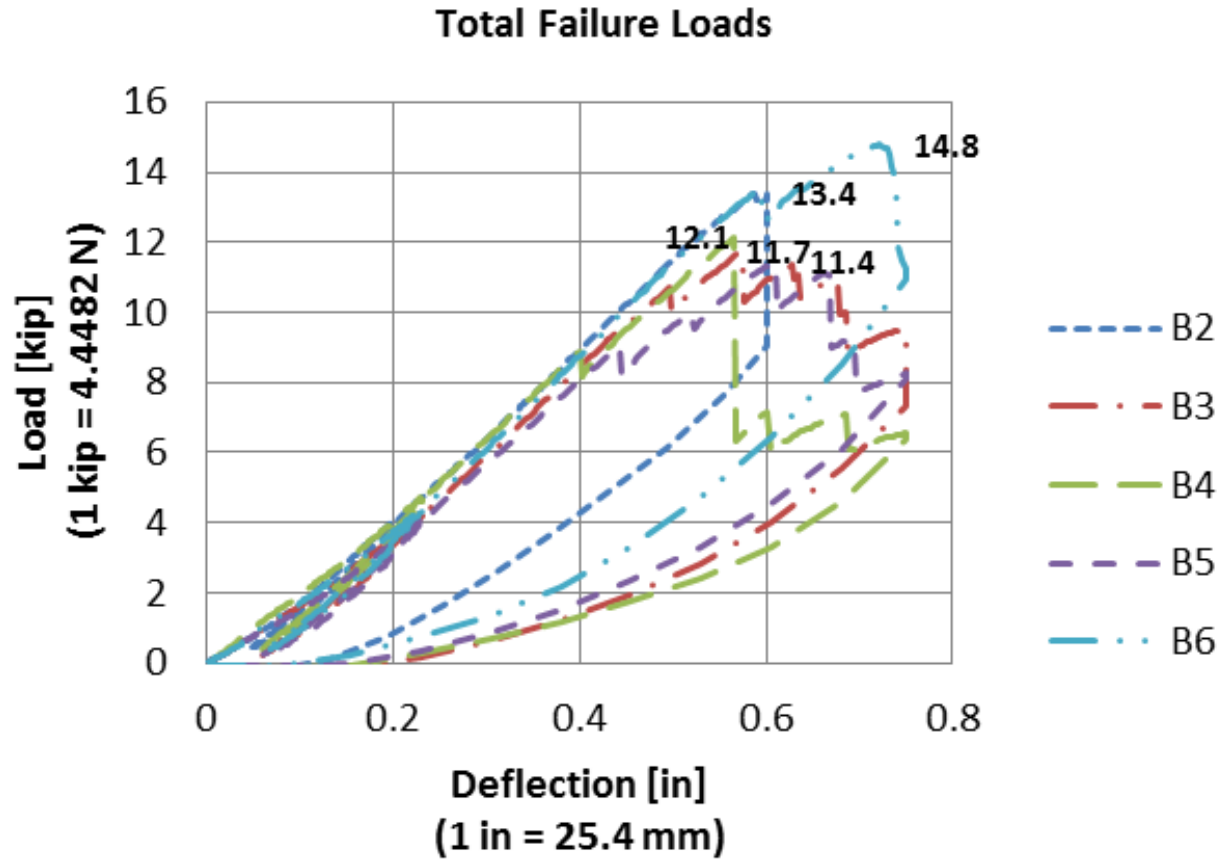
# Specimens under Construction



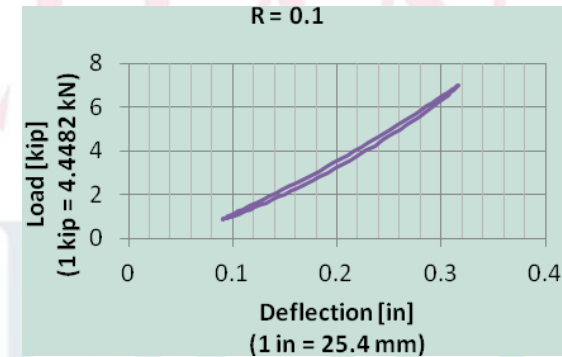
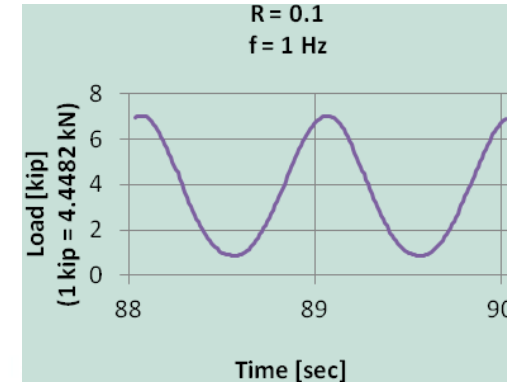
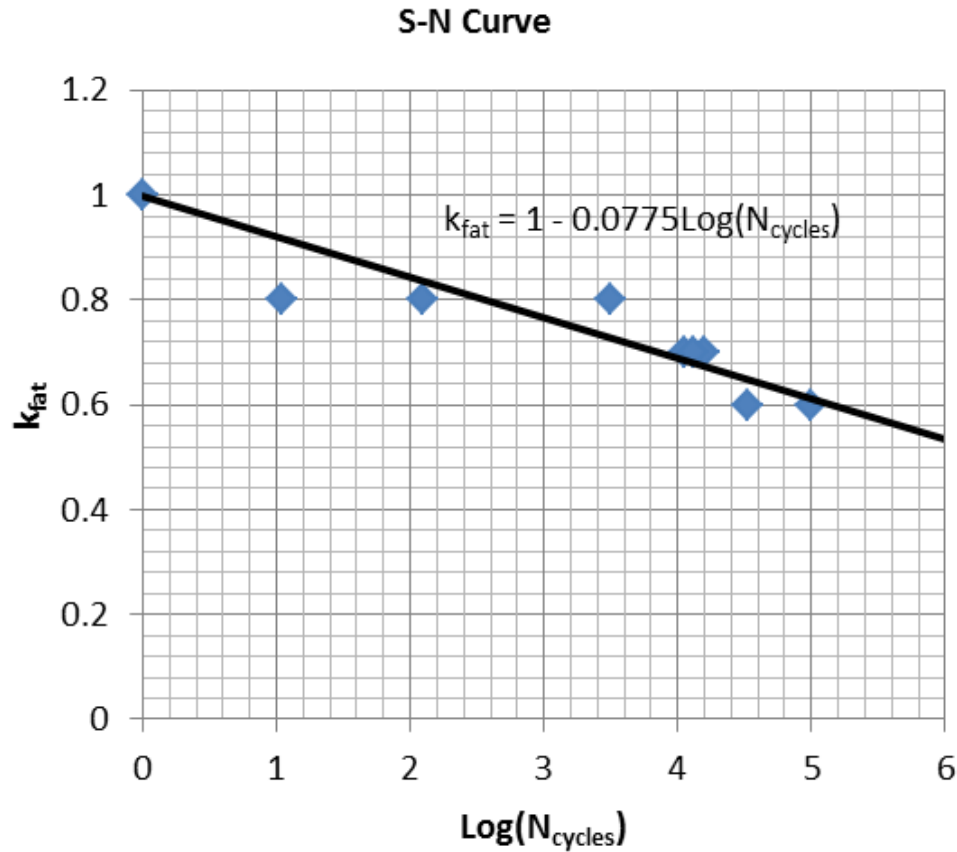
# Test Setup



# Static Test Results



# Fatigue Test Results



# Observed Failure Modes



*Typical block-shear failure*



*Typical tension failure*

# Conclusions

- Points on the S-N curve were determined for three levels of the maximum load as a function of the average static failure load.
- Typical observed failure modes were block-shear of the wood at the notch in some cases followed by tension failure of the wood at mid-span.
- The results tentatively indicate that the provisions of EC5 EN 1995-2:2004 for fatigue verification could be used for the type of composite member studied herein provided the expected failure mode is by block shear of the wood at the notches.
- This conclusion is tentative only, due to the small number of tests it is based on, however it is consistent with findings by Kuhlmann and Aldi.



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Thank you.

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