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LAMINATED TIMBER SUBJECTED TO  
CLIMATIC CYCLES

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# JOINTS WITH BARS GLUED-IN SOFTWOOD LAMINATED TIMBER SUBJECTED TO CLIMATIC CYCLES

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## Abstract

The effect of climatic cycles (extreme temperatures and humidity) on the performance of joints made with threaded steel rods glued by two-component epoxy adhesive in softwood glulam timber is studied. Short-term tests have been made on three types of specimens: standard condition specimens (20°C/65%RH), specimens subjected to extreme temperature and humidity during its storage in climatic chamber in service load situation, and specimens in similar unloaded situation. The load capacity, the failure modes and the load-deflection curves have been compared for the different types of specimens. The obtained results do not show a clear influence of the previous exposition to extreme climatic situations in the strength of the joint. On the contrary, the stiffness of the joints, especially those with longer anchorage length, has been reduced up to 35% in the specimens that

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