

Method for Verifying Local Buckling of Steel Plate Elements of Steel and Composite Structures

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In the design of steel and composite structures, it is important to accurately evaluate the buckling resistances of steel members. This paper first summarizes the basis and problems of the local buckling ultimate strength curves of steel plates in conventional design standards. In addition, the local buckling ultimate strength curves were revised on the basis of recent findings, and a trial design of composite beams was carried out using the revised local buckling strength evaluation method. The results confirmed that the revised method allows a more economical design for the upper flange of composite girders.