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8 - Acoustic performance of cold-formed steel buildings

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Abstract

This chapter introduces the requirements associated with acoustic performance in buildings, and sound insulation properties of building partitions composed of cold-formed steel (CFS) sections. Developments in experimental tests and analytical and numerical methods for determining acoustic performance of CFS buildings are presented. Design and construction methods for walls and floors using CFS sections to achieve desired acoustic performance are included. Recent research on CFS acoustic studs is highlighted. Typical acoustic performance values of building partitions using CFS sections are provided. Finally, acoustic design examples of a wall and a floor are described for reference.