

5.1.3.2 – In all types of composite structural systems the energy dissipation takes place in the vertical steel sections and in the vertical reinforcements of the walls. In type 3 composite structural systems, energy dissipation may also take place in the coupling beams.

5.1.3.3 – If, in composite structural systems the wall elements are not connected to the steel structure, **Chapters 3 and 4** apply.

5.1.3.4 – The behaviour factor q shall be taken from **Table 4.1** or **Table 5.2** as indicated in the latter, provided that the rules in **5.3** to **5.9** are met.

Table 5.2. Behaviour Factors (q) for composite structural types

Structural type	q
Composite moment resisting frame system	5.0
Composite eccentrically braced frame system	5.0
Composite concentrically braced frame system	3.5
Frame-dominant dual system	4.0
Braced frame-dominant dual system (eccentric bracing)	4.0
Braced frame-dominant dual system (concentric bracing)	3.5
Inverted pendulum system	1.5
Composite walls (Type 1 and Type 2)	3.5
Composite or concrete walls coupled by steel or composite beams (Type 3)	3.5
Composite steel plate structural walls	3.5

5.1.4. Material requirements

5.1.4.1 – In dissipative zones, the prescribed concrete class should not be lower than C20/25. If the concrete class is higher than C40/50, the design is not within the scope of EN 1998-1.

5.1.4.2 – For ductility class DCN the reinforcing steel taken into account in the plastic resistance of dissipative zones shall be of class B or C in accordance with EN 1992-1-1:2004 Table C.1.

5.1.4.3 – Reinforcing steel of class B or C (EN 1992-1-1:2004, Table C.1) shall be used in highly stressed regions of non dissipative structures. This requirement applies to both bars and welded meshes.

5.1.4.4 – Except for closed stirrups or cross ties, only ribbed bars are allowed as reinforcing steel in regions with high stresses.

5.1.4.5 – Welded meshes not conforming to the requirements of **5.1.4.2** shall not be used in dissipative zones. If such meshes are used, ductile reinforcement duplicating the mesh should be placed and their resistance capacity accounted for in the capacity analysis.