Loading	Factor, γ_f
Dead load	1.4
Dead load restraining uplift or overturning	1.0
Dead load acting with wind and imposed loads combined	1.2
Imposed load	1.6
Imposed load acting with wind load	1.2
Wind load	1.4
Wind load acting with imposed load or crane load	1.2
Forces due to temperature effects	1.2
Crane loading effects	
Vertical load	1.6
Vertical load acting with horizonal loads (crabbing or surge)	1.4
Horizontal load	1.6
Horizontal load acting with vertical	1.4
Crane load acting with wind load*	1.2

*When considering wind or imposed load and crane loading acting together the value of γ_f for dead load may be taken as 1.2.

Table 4.1. Load Factors and Combinations - BS 5950

4.3.4 LIMIT STATE OF SERVICEABILITY

Serviceability loads shall be taken as the unfactored loads with all serviceability load combinations specified in the relevant codes used.

1. Deflections of a building or part under serviceability loads should not impair the strength or efficiency of the structure or its components, nor cause damage to the finishing.
2. Deflection limits shall not exceed the suggested values given in Table 2. as per BS 5950.

a) Vertical deflection of beame due to imposed load	
Cantilevers	Length/180
Beams carrying plaster or other brittle finish	Span/360
Other beams (except) purlins and sheeting rails	Span/200
Purlins and sheeting rails	See 4.12.2
b) Horizontal deflection of columns due to imposed load and wind load	
Tops of coloumns in single-storey building, except portal frames	Height/300
Coloumns in portal frame buildings, not supporting crane runways	To suit cladding
Coloumns supporting crane runways	To suit crane runway
In each storey of a builidng with more thean one storey	Height of that storey/300
c) Crane girders	
Vertical deflection due to static vertical wheel loads from overhead travelling cranes	Span/600
Horizontal deflection (calculated on the top flange properties alone) due to horizontal crane loads	Span/500

Table 4.2. Deflection Limitations - BS 5950

3. When checking for deflections the most adverse realistic combination and arrangement of serviceability loads shall be considered, and the structure may be assumed to behave elastically. On low pitched and flat roofs the possibility of ponding should be investigated.
4. Vertical and horizontal limits of deflection due to all loads shall in general be limited to the deflection limits specified in the codes. Special care shall be taken to limit the deflection to suit the cladding, crane girder tolerances, members supporting sensitive machineries etc.
5. Vibration and oscillation of building structures should be limited to avoid discomfort to users and damage to contents. Reference to specialist literature shall be made as appropriate.
6. In order to ensure the durability of the structure under conditions relevant both to its intended use and to its intended life, the following factors should be taken into account in design:
   - Environment around the structure and the degree of exposure.
   - Shape of the members and structural detailing.
   - Protective measures.