

where C_1 can be obtained from Fig. 8.5 using the calculated values of R and h/L .

(b) Axial force in the beam (T)

This force is assumed to be a maximum at the centre and can be determined using the equation

$$T = PC_2 \quad (8.9)$$

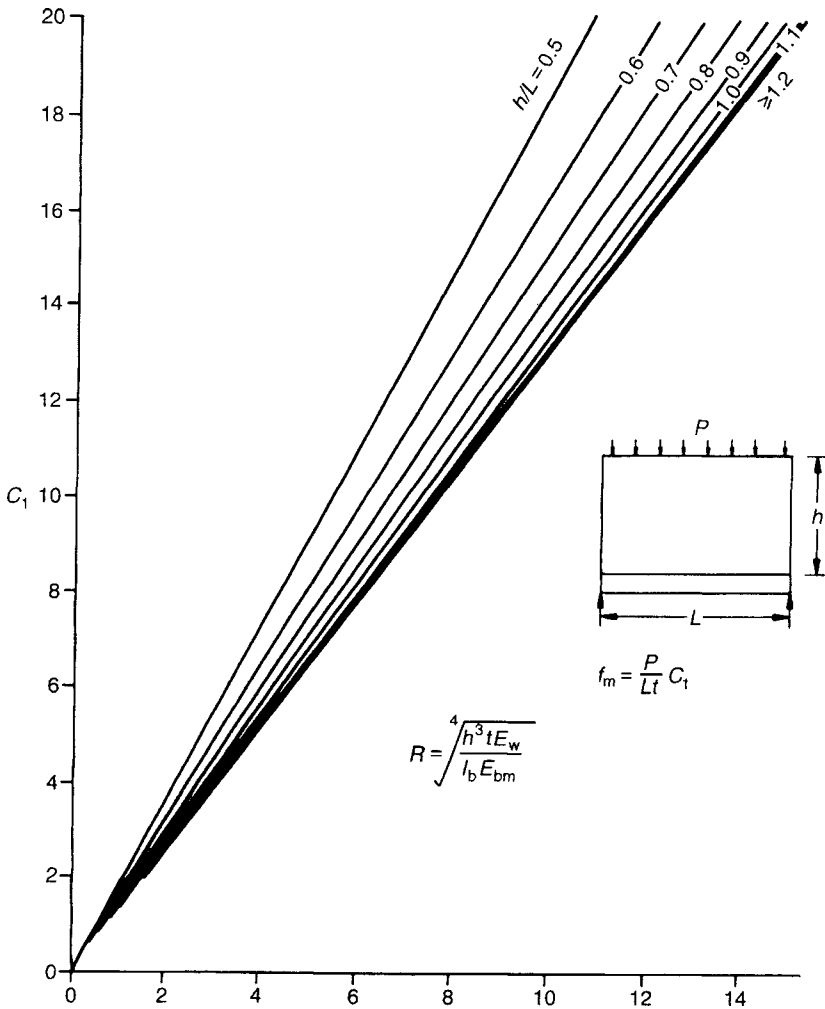


Fig. 8.5 Flexural stiffness parameter.

where C_2 can be found from Fig. 8.6 using the calculated values of K_1 and h/L .

(c) Maximum shear stress along interface (τ_m)

The maximum interface shear occurs near the supports and can be determined using

$$\tau_m = (P/Lt) C_1 C_2 \quad (8.10)$$

where C_1 and C_2 are the values already obtained from Figs 8.5 and 8.6.

(d) Bending moments in the beam

The maximum bending moment in the beam does not occur at the centre, because of the influence of the shear stresses along the interface. Both the maximum and central bending moments can, however, be

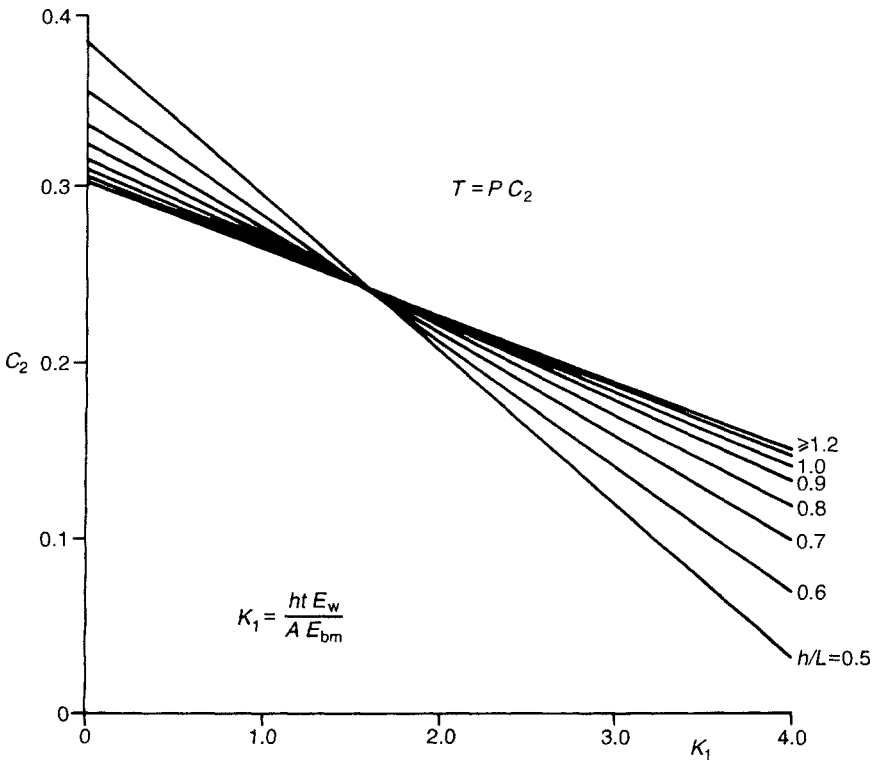


Fig. 8.6 Axial stiffness parameter.