



Worked Example

Check fire resistance of R120 to Method A

eccentricity $e < 0.15b$

$$e = M_{Ed}/N_{Ed} = 78.5 \times 10^3 / 1824 = 43 \text{ mm}$$

$$0.15 \times 350 = 52.5 \text{ mm} \therefore \text{OK}$$

Assume 8 bars \therefore OK

$$l_{0,fi} = 0.7l = 2.8 \text{ m} < 3 \text{ m} \therefore \text{OK}$$

From Table 5.2a: min dimensions = 350/57

Column is 350mm, axis distance required = 57mm

$$\text{Check cover} - 35 \text{ mm} + 8 \text{ (link)} + \phi/2 = 55.5 \text{ mm}$$

\therefore Increase links to 10 mm diam

or increase nominal cover to 40mm.