

DESIGN EXAMPLE F3

An internal compartment loadbearing cavity wall has both leaves loaded from roofing construction. The applied design vertical load is 12,5 kN/m to each loaded leaf. The wall comprises 2 no. 100 mm Group 2 lightweight aggregate concrete blockwork masonry units in a General Purpose mortar. Masonry unit gross dry density is 900 kg/m³. The wall actual height is 2500 mm between structural supports. A Eurocode 6 Part 1.1 loading calculation shows that the design vertical load resistance for each leaf of the cavity wall is 35 kN/m. Determine the fire resistance period of the cavity wall construction.

Reassess the fire resistance period of the cavity wall above as a non-loadbearing wall construction.