**Solution - Design Example F2a - Autoclaved Aerated Concrete Block (Separating and Loadbearing Function)**

Using Table NA.4.2 of UK National Annex to Eurocode 6 Part 1.2 :-

Wall thickness - 120 mm unplastered finish

Masonry unit type - Group 1 autoclaved aerated concrete

Mortar type - Thin layer

Gross dry density, $\rho = 650$ kg/m$^3$ - within 500 - 1000 kg/m$^3$ compliance category

Design load ratio $= 180$ kN/m / 187 kN/m (see Design Example 2 for EC6 Part 1.1)

$= 96\%$ (greater than 60%, but less than 100%)

Therefore $\alpha \leq 1.0$ category

Therefore standard fire resistance period for an unplastered wall is 120 minutes REI (100mm wall thickness is limiting tabulated thickness)

*Autoclaved aerated concrete blockwork wall will provide 120 minutes REI standard fire resistance as an unplastered construction*

(Note: this fire resistance period is directly comparable with UK building regulations requirements in respect of the separating and loadbearing function)
Solution - Design Example F2b - Autoclaved Aerated Concrete Block (Separating and Non-Loadbearing Function)

Using Table NA.4.1 of UK National Annex to Eurocode 6 Part 1.2 :-

Wall thickness - 120 mm unplastered finish

Masonry unit type - Group 1 autoclaved aerated concrete

Mortar type - Thin layer

Gross dry density, $\rho = 650 \text{ kg/m}^3$ - within 500 - 1000 kg/m$^3$ compliance category

Non-loadbearing alternative situation

Therefore standard fire resistance period for an unplastered wall is 240 minutes EI
(100 mm wall thickness is highest tabulated thickness)

\textit{Autoclaved aerated concrete blockwork wall will provide 240 minutes EI standard fire resistance as an unplastered construction}

(\textit{Note: this fire resistance period is directly comparable with UK building regulations requirements in respect of the separating and non-loadbearing function})