

Limit Compressive Design Stress f_d for masonries and other data for masonries



References

Reference 1 is **Fábrica de Bloques de Hormigón**, Mas, Vallejo, González, Universidad Politécnica de Valencia, Servicio de Publicaciones, Libro Apunte Nº 72, Valencia 1996

Reference 2 is **Instrucciones para la Elaboración del Proyecto Arquitectónico**, Comisión de Coordinación de Centros de Asesoramiento Tecnológico, Consejo Superior de Colegios de Arquitectos de España, 2000

Reference 3 is model code **p.i.e.t. 70. Prescripciones del Instituto Eduardo Torroja**, capítulo **Obras de Fabrica**, *ietcc*, Madrid, 1971

Reference 4 is code **NBE FL-90, Muros resistentes de Fábrica de Ladrillo**, *MOPTMA*, Madrid, 1994

Reference 5 is code **NBE AE-88, Acciones en la Edificación**, *MOPTMA*, Madrid 1988

Sources for f_d of masonries (to be compared with stresses from factored loads)

Ladrillo Macizo: Table 5.1 Reference 4

Ladrillo Perforado: Table 5.2 Reference 4

Termoarcilla (Thermoclay): Treat as Ladrillo Perforado of same strength

Ladrillo Hueco: Table 5.3 Reference 4

Concrete Block (normal and lightweight): p. 84 of Reference 1

Rough Stones: p. 67 of Reference 3

Cut Stones: p. 67 of Reference 3

Usual Values of f_d

Ladrillo macizo (Brick till 10% voids): 20 kgf/cm²

Ladrillo perforado (Brick over 10% voids): 16 kgf/cm²

Ladrillo Hueco (Brick with transverse voids): 10 kgf/cm²

Concrete Block: 14 to 20 kgf/cm²

Ceramic Block: 16 kgf/cm²

Adobe and Tapial: 1 to 3 kgf/cm²

Cut Hard Stones such Granite and Basalt: 40 to 80 kgf/cm²

Rough Hard Stones such Granite and Basalt: 7 to 25 kgf/cm²

Cut Limestone, Sandstone: 20 to 40 kgf/cm²

Rough Limestone, Sandstone: 6 to 12 kgf/cm²

Cut Soft Limestone or Sandstone: 10 to 20 kgf/cm²

Rough Soft Limestone or Sandstone: 5 to 8 kgf/cm²

Minimum thickness for

Tapial of Mud: 70 cm

Tapial of Consolidated Earth: 50 cm

Tapial of Estabilized Earth: 30 cm

Description of these works in p. 120 of Reference 3

Limit shear strength for brick masonries
p. 73 of Reference 3

Other help
The more complete reference is Reference 3
p. 1.172 Reference 2

