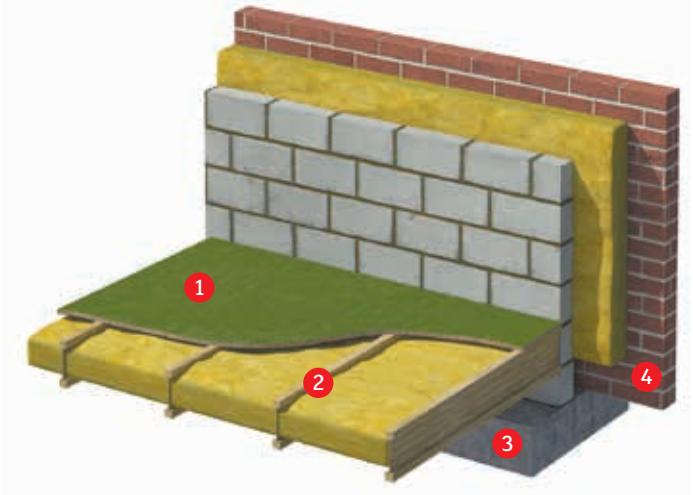
Floors.

Superglass Insulation for suspended timber ground floors.

Typically a suspended timber floor consists of timber flooring attached to timber joists which are then suspended above the building's foundations. Superglass insulation is ideal for easy installation and minimising heat loss. This is achieved by friction fitting the insulation between the timber joists.

Typical Application

1. T & G Flooring
2. Timber joists (400mm centres) with Superglass insulation
3. Foundations
4. External masonry wall



Thermal Insulation

Superglass Insulation for suspended timber ground floors

Superglass Products	Thermal conductivity
Multi-Roll 40	0.040 W/mK
Multi-Roll 44	0.044 W/mK

Typical U-Values achieved (W/m²K)

		Perimeter/Area Ratio									
Insulation and joist depth (mm)	Superglass insulation	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
300 (2x150)	Multi-Roll 40	0.10	0.12	0.12	0.13	0.13	0.13	0.14	0.14	0.14	0.14
300 (2x150)	Multi-Roll 44	0.10	0.12	0.13	0.14	0.14	0.14	0.14	0.15	0.15	0.15
250 (100+150)	Multi-Roll 40	0.11	0.13	0.14	0.15	0.15	0.16	0.16	0.16	0.16	0.16
250 (100+150)	Multi-Roll 44	0.11	0.14	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.17
200	Multi-Roll 40	0.12	0.15	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.19
200	Multi-Roll 44	0.13	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.20	0.20
170	Multi-Roll 44	0.14	0.17	0.19	0.20	0.21	0.22	0.22	0.23	0.23	0.23
150	Multi-Roll 40	0.14	0.18	0.20	0.21	0.22	0.23	0.23	0.23	0.24	0.24
150	Multi-Roll 44	0.15	0.19	0.21	0.22	0.23	0.24	0.24	0.25	0.25	0.25
100	Multi-Roll 40	0.16	0.22	0.25	0.27	0.28	0.19	0.30	0.31	0.31	0.32
100	Multi-Roll 44	0.17	0.23	0.26	0.28	0.29	0.30	0.31	0.32	0.33	0.33

Calculated using 11% bridging for timber joists.

Superglass Insulation for internal floors.

Aside from internal floors being able to support the different loads of a building, there are also regulations defining their performance in terms of fire resistance and, in England and Wales, requirements in terms of sound insulation too. Even where formal regulations do not exist, it would be reasonable to expect that an internal floor should provide good acoustic separation between storeys.

While thermal performance is not specifically regulated, the increasing focus being placed on the energy efficiency of an entire building means that it makes good sense to maintain optimum temperatures in different rooms.

Internal floors are generally either timber or metal construction, and there are effective Superglass products for both applications.

Timber floors are typically constructed using either timber or metal joists. In each case, the installation of Superglass insulation in the void between the beams will provide improved acoustic performance, while also delivering significant benefits in terms of thermal performance without increasing floor depth.

1. T & G Flooring
2. Plasterboard below timber joists
3. Timber joists with Superglass insulation