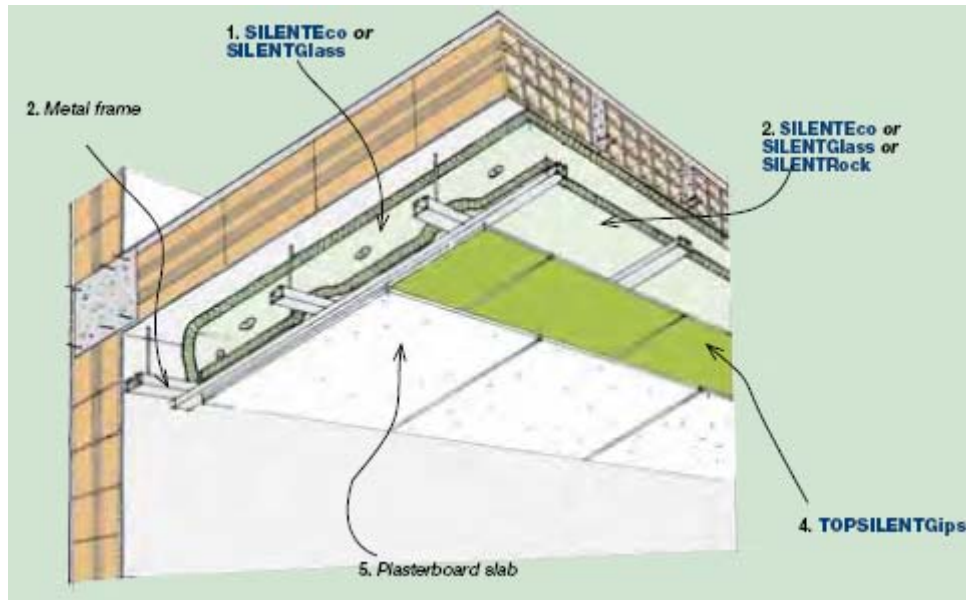


ACOUSTIC INSULATION OF CEILINGS AGAINST AIRBORNE AND FOOT TRAFFIC NOISE ON HANGING METAL FRAMEWORK



Existing floor with false-ceilings on a suspended metal frame

The acoustic insulation against foot traffic noise of the existing floors above dwelling, will be obtained by a lowered false-ceiling measuring ...cm, in lined plaster, which delimits an interspace with double insulation, consisting of:

- in panels with polyester fibre base, density of 20 kg/m^3 , non-toxic, heat-sealed and free from glues, airtightness $r=2.26 \text{ KPa/ sm}^2$ and thermal conductivity $\lambda=0.040 \text{ W/m}^\circ\text{K}$, type **SILENTEco**, with thickness $s=... \text{ cm}$.

Or alternatively:

- in panels with fibreglass base with density of 30 kg/m^3 , airtightness $r=19.5 \text{ KPa/sm}^2$ and thermal conductivity $\lambda=0.032 \text{ W/m}^\circ\text{K}$, type **SILENTGlass**, with thickness $s=... \text{ cm}$.

Or alternatively:

- in self-bearing panels of rock wool with density of 40 kg/m^3 , airtightness $r=14.9 \text{ KPa/sm}^2$ and thermal conductivity $\lambda=0.035 \text{ W/m}^\circ\text{K}$, type **SILENTRock**, with thickness $s=... \text{ cm}$.

The first layer of ...cm in thickness will be glued or secured mechanically to the ceiling while the second layer of ...cm in thickness will be laid on the cladding plasterboard panels of the false-ceiling. This will be done with a double layer of plasterboard panels with damping layer in-between screwed onto the metal profiles of a frame hanging on special hooks for the acoustic insulation.

- The cladding will be made up of a first plasterboard panel pre-coupled with a high density and very high critical frequency soundproof foil, with thickness $s=16.5 \text{ mm}$ and mass per unit area of 15 kg/m^2 , type **TOPSILENTGips**, followed by laying a second plasterboard panel, thickness $>12\text{mm}$.

Joint-covering mesh tape, type **NASTROGIPS**, will be laid over the joining lines of the panels to reinforce the seal of the joints made with **STUCCOJOINT** sealing filler.