General, technical and safety aspects regarding **PLASTERBOARD CEILINGS** 



\*siniat

# ✓ Good to know before works: design & planning



## Permission of the architect

Prior to installation a detailed design of ceiling should be approved by the architect.

#### Compliance with the system

Maximum distances between ceiling components should be specified according to Siniat system documentation.



#### Uniformity of components

Ceiling components should be exclusively part of the Siniat ceiling system with NIDA Metal components! The practice shows the most frequent reason for the ceiling collapse is mixing of components from different suppliers, due to their incompatibility.



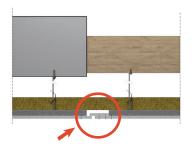
#### Load

Siniat Ceilings are designed to support additional max 7 kg / sqm uniformly distributed load (ex: insulation, lighting fixtures, surface finishing).



## Extending the suspension set

In case when "Wire with eyelet" is used as a suspending element, only one "Butterfly clip double spring" based extension is allowed. In the case of bigger suspensions, we suggest the utilization of a longer "Wires with eyelet" element or the application of "Nonius set" as a suspending solution.



## **Expansion joints**

Expansion joints must be provided for large surfaces of the suspended ceiling, interrupting the whole of the horizontal surface at every 10 m. The need for their presence also arises around structural joints of the building, when the ceiling is suspended on various types of supports with important reciprocal displacements, or on elastic supports that might have significant deflections.

# Good to know during works: ceiling installation and other related works







# Is the site ready for the ceiling installation?

All preceding works should be finalized. The interior of the building is completely weatherproof: external walls, windows, gable walls, ridge covers and roofing in place. Plumbing, electrical and any other type of installations are already installed in position in the plenum over the the future position of the plasterboard ceiling.

Direct exposure of the ceiling to the external weather conditions must be prevented by any means.

## Don't walk over the ceiling

This could lead to a damage made to plasterboard, construction, even to a collapse of the ceiling and severe injuries. Ceiling is not designed to carry any additional even short-term load from above. If some subsequent intervention in the plenum space is necessary, access should be made via access panels or an independently suspended scaffolding should be installed to hover in the plenum space without any contact point with the suspending ceiling or suspending elements.

## Insulation

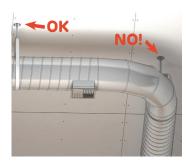
Insulation layer must be evenly placed on the surface of the ceiling with the same thickness and the no. of layers. Any wetting of the insulation and the generation of moisture in its environment, during a ceiling installation works or the life of the ceiling, must be avoided.



#### Don't cut profiles or suspending elements

If elements of the ceiling are removed or their continuity is interrupted during the installations setting process above the ceiling (air condition, ventilation, lighting...) or the installation of a lighting features , the ceiling stability is endangered. We strongly suggest that any of such works must be supervised by skilled engineers with the plasterboard expertise.





#### Do not suspend extra load on the ceiling

HVAC systems (ducting, wiring, plumbing, ventilation, heating installations, sprinklers etc) should not be suspended on the plasterboard ceiling but instead should be independently suspended from the the building load bearing elements. Plasterboard ceiling are not designed to carry the load of this installations.



## Prevent the vibration transfer to the ceiling

For any penetrating installation, such as ventilation channels, a narrow surrounding gap should be provided and filled with elastic materials such as a silicone, to fully absorb any type of a vibration coming from the installation itself.

Vibration could cause cracks and other aestetical distortions on the ceiling surface.

# ✓ Good to know after works: keeping a ceiling in good shape



#### Maintenance

We suggest a periodic control of the concealed installations functionality as their defect such as the leakages of the liquids, condensation, or sparkling of the wiring, can cause damage to the ceiling below.

In the case of a water leakage, an immediate reaction is required. The first step should be determining the source of the leak and plumb it. Then you should drain water from your ceiling and take the proper steps to replace the damage. Puncture the ceiling to drain the leak. After, it is necessary to assess the ceiling surface on which the plasterboard damage occurred. The best solution would be to replace the complete plasterboard rather than some segment. This assessment should be carried out by observation from the nearest access panel if there is some. If not, a special opening should be cut avoiding electrical wires, plumbing, gas lines, or HVAC ducts, that could be located within the plenum space above the plasterboard ceiling.

# Where these recommendations apply?

#### Individual houses or residential buildings

Presented recommendations are valid for the premises with the usual living conditions in terms of the room temperature, moisture level etc. For industrial or other high moisture conditions, additional requirements will apply.



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On our web site is possible also to find a lot of useful tools such as "Calculator pentru sisteme gips-carton" and ceiling related materials, such as CAD details, technical properties for each solution, 3D visuals.

# Etex Building Performance S.A.

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