Datasheet

ALLOWABLE LOADS STEC 47/60 + F47 FALSE CEILING SYSTEM

DESCRIPTION AND LOAD TYPES

■ The F47 false ceiling system has been designed to support the weight of up to 3 gypsum boards and a mineral wool (or alike) insulation layer. Any other load, such as equipments, must be fixed to the slab with their own hangers, aside from the Kingspan F47 system.

■ For the purposes of this document, the total loads to be suspended from the F47 system are classified as:
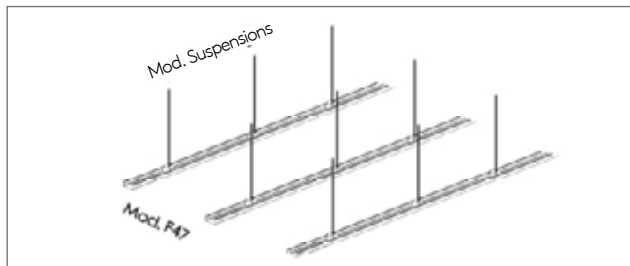
CLASS 1: Loads up to 0.20 kN/m²

CLASS 2: Loads up to 0.35 kN/m²

CLASS 3: Loads up to 0.45 kN/m²

■ To obtain the maximum load, the weight of the boards to be suspended from the system and the weight of the insulation will be added. The resulting load will be multiplied by a safety factor of 1.35.

SIMPLE STRUCTURE CEILING (F47 + SUSPENSION)

CLASS 1: < 0.20 kN/m²	
F47 spacing	Hangers max. spacing
0.4	1.20
0.5	1.20
0.6	1.20

CLASS 3: < 0.45 kN/m²	
F47 spacing	Mod. max. suspension
0.4	1.00
0.5	0.80
0.6	0.80

CLASS 2: < 0.35 kN/m²	
F47 spacing	Hangers max. spacing
0.4	1.20
0.5	1.00
0.6	1.00

1 kN ≈ 100 kg

0.20 kN/m² ≈ 20 kg/m²

0.35 kN/m² ≈ 35 kg/m²

0.45 kN/m² ≈ 45 kg/m²

DOUBLE STRUCTURE CEILING (F47 + STEC 47/60)
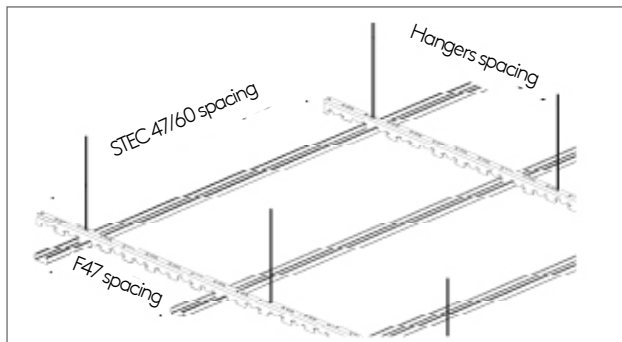
CLASS 1: < 0.20 kN/m²		
F47 spacing	STEC47/60 spacing	Hangers max. spacing
0.4	0.80	1.00
	1.00	0.90
	1.20	0.80
0.5	0.80	1.00
	1.00	0.90
	1.20	0.80
0.6	0.80	1.00
	1.00	0.90
	1.20	0.80

CLASS 2: < 0.35 kN/m²		
F47 spacing	STEC47/60 spacing	Hangers max. spacing
0.4	0.80	0.75
	1.00	0.70
	1.20	0.60
0.5	0.80	0.75
	1.00	0.70
0.6	0.80	0.75
	1.00	0.70

1 kN ≈ 100 kg

0.20 kN/m² ≈ 20 kg/m²

0.35 kN/m² ≈ 35 kg/m²

0.45 kN/m² ≈ 45 kg/m²

CLASS 3: < 0,45 kN/m²		
F47 spacing	STEC47/60 spacing	Hangers max. spacing
0.4	0.80	0.65
	1.00	0.60
0.5	0.80	0.65
0.6	0.80	0.65

EXAMPLES OF APPLICATION

■ **EXAMPLE 1:** Find the load class of a ceiling made up with three boards of 0.09 kN/m² each, and an insulation layer of 0.04 kN/m². The total weight will be: [(3 x 0.09) + 0.04] x 1.35 = 0.42 kN/m², and therefore, it will result in **CLASS 3**.

■ **EXAMPLE 2:** If we have a **CLASS 2** load, and we want to use the simple structure system with F47 spaced every 0.6 m. In this case, the hanger anchors will be arranged at most every 0.75 m.

■ **EXAMPLE 3:** Suppose we have a **CLASS 2** load, and we want to use the double structure system and STC47/60 arranged at 1.2 m centers. In this case, the F47 profiles will be spaced at a maximum of 0.4 m and the hangers spaced at a maximum of 0.80 m.