

TECHNICAL DATASHEET

PLAKA

PLAKA dBREAK – ACOUSTICAL WALL TIE

Acoustical fixation for double walls REF 12.01.01 - Version V01 - 18/08/2020



Description



The acoustical wall tie is composed of 3 elements: a stainless steel holder, a rubber block (cork- elastomer – 30x30x25mm) and a one-sided folded wall tie (ø4mm).

The steel holder and wall tie are the mounting parts towards the load-bearing wall and the masonry wall respectively while the rubber block ensures the acoustic decoupling of the fixation.

This provides the replacement of rigid contacts caused by the classic steel wall ties by flexible connections whereby the walls are connected without vibration transmission.

In case of a concrete wall as a support structure, the holder has a L-shape placed against the structure. For masonry walls, the holder has a U-shape that has to be placed in the mortar joint.

Application fields

Sound and vibrations from the outside affect outside walls and can be spread through the floor and the internal walls in the building in the form of airborne noise. The acoustical wall tie is used as a connection element (stability) between doubled-up walls and works following the mass-spring-mass principle. Therefore, the transmission of vibration from outside to the internal structure will be limited.

Principle applications:

- Decoupling of external walls with a lot of noise from the outside
- Provisional facades of rowhouses
- Partition walls between flats
- Decoupling of noisy room

Properties

Mechanical properties			
Service load P	500 N		
Failure load	1920 N		
Displacement			
at 1/3 service load (P/3)	1mm		
at service load (P)	3mm		
Natural frequency between P/3 and P	11-16Hz		
Density of the acoustic block	1100 kg/m³		
Creep rate	0,66% (< 2% creep criterion)		
Elastic recuperation (30 min after removing)	98,33%		
Thermal conductivity λ	0,18 W/mK		

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Dimensions

Dimensions and materials					
Article	Description	Picture	Weight	Code	
Acoustic block	cork-rubber composite strengthened with Kevlar fibres 30x30x25mm		2,6 kg/100	HUCACD3030254	
Steel holder L-shape U-shape	St.steel 304 - 40x50x40mm St.steel 304 Ø3mm - 100x30x100mm		5,90 kg/100 1,20 kg/100	HUCALI240403 HUCAUI2003	
Wall tie	St. steel 304 Diameter 4mm Length in function of the installation: Length 200mm Length 250mm		2,20 kg/100 2,70 kg/100	HUCACI2420040 HUCACI2425040	
Minimum cavity width L-shape U-shape	45mm 35mm				