

# SINUS 06NC85 - 5D English



## DESCRIPTION

Expansion strips are mounted in concrete floor plates to compensate movements in plate sections. Concrete plates are exposed to internal and external pressures. Damage occurs mainly at the edges of plates near to connections. Connection of floor plates should compensate their mutual horizontal movements (perpendicular and parallel to the expansion joint) which are usually caused by thermal expansion and shrinkage of concrete. At the same time the connection must also block vertical movements and mutual curving of floor elements which is a consequence of traffic, heavy loads and uneven passive earth pressure.

The Sinus expansion joints ensure an even distribution of the loads between floor plates by preventing excessive local tensions. Expansion profiles help to eliminate the main reason behind uncontrolled floor cracking, they make the floor last longer and improve use comfort.

The number of expansion joints should allow to divide the floor into regular fields, with a shape similar to a square of up to 1000 m<sup>2</sup>, which constitutes a daily flooring efficiency. Profiles should be spaced at a distance not greater than 45-45 m.

The system is complete, easy to install and ready for application, all you should do is place the profiles at the installation site and join them without wrenches, using screws with wing nuts provided in the package.

The Sinus joints guarantee proper resistance in case of permanent high traffic loads.

For the design and joints quantities is recommended to refer to the legislation "CNR-DT 211/2014".

Standard bar length 3,00 lm (nominal length).

This table shows the load at failure in bursting (failure of the concrete) and bending (failure of the DOWEL) for a joint opening of 25 mm. The ultimate load has been calculated in accordance with TR 34 (4th edition)\*. Load capacity about expansion joints depending on amount of DOWELS in one joint [kN/lm] steel S 355 MC, floor concrete C 25/30

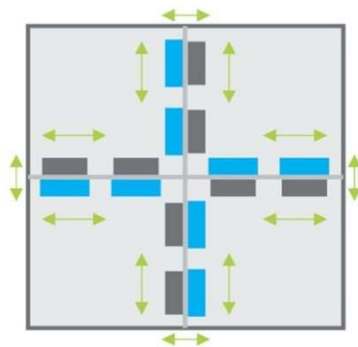
\* According to TR34. Edition 4 from 2013

QUANTITY OF DOWELS PLATES DISTRIBUTED PER ON BAR LENGTH	JOINT OPENING WIDTH (mm)					
	0	5	10	15	20	25
5D	303	197	136	101	79	65
6D	364	236	163	121	98	78
7D	424	276	190	141	111	91

## CONNECTION BUILDING ELEMENTS

CONNECTION BUILDING ELEMENTS AVAILABLE ON REQUEST

ABS plastic cover for Dowel plate

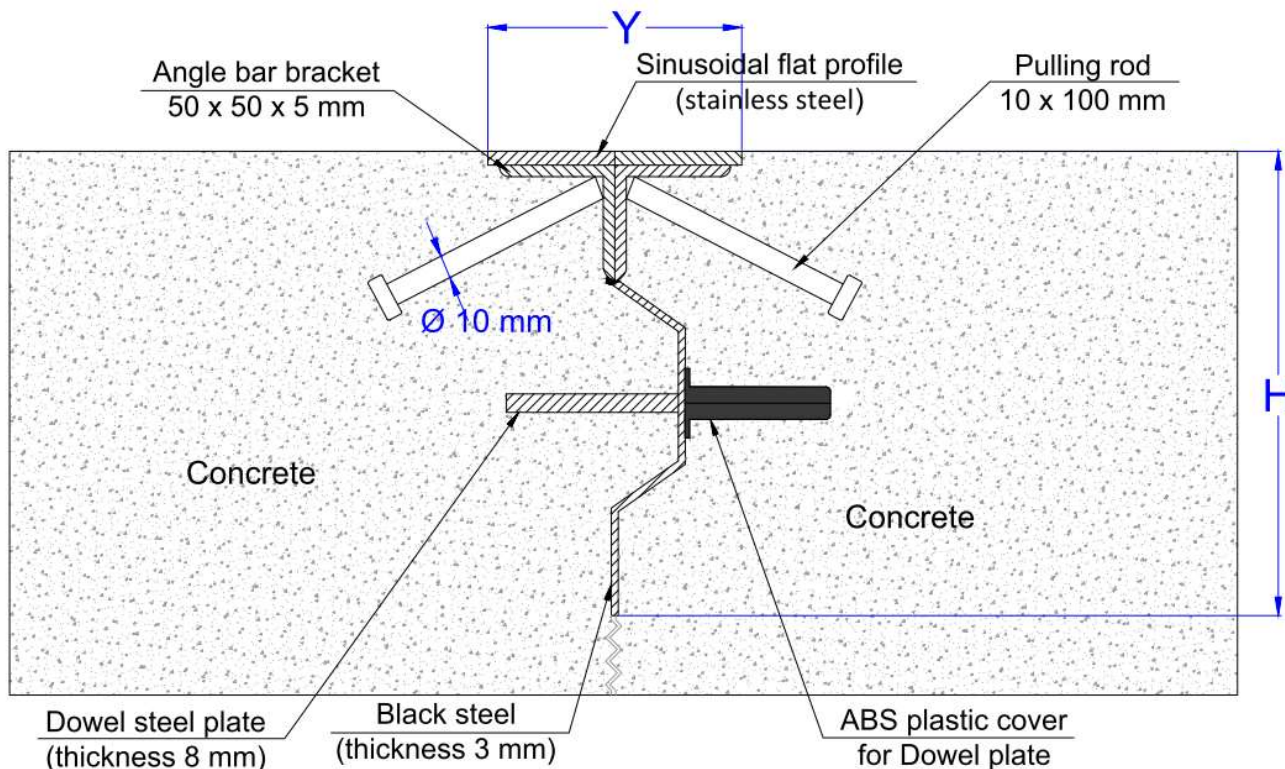


Distribution Scheme of ABS plastic cover for Dowel plate

**PLACES OF APPLICATION**

Airports Industrial floors    Logistic and distribution centers    Industrial buildings    Industrial storage facilities    Shopping centers

**MOUNTING**



**STANDARD PROFILES AVAILABLE\***

Art.	Y (mm)	Floor height (mm)	H (mm)	Dowel size (mm)	Dowel spacing (mm)	Mov. (mm)
<b>SINUS 06NC85-5D</b>	85	100-110	90	180 x 120 x 6	600	The expansion joints allow for a movement between floor plates: - DOWEL size 180 x 120 x 6 mm +/- 15 mm parallel and +/- 20 mm perpendicular - DOWEL size 180 x 120 x 8 mm +/- 15 mm parallel and +/- 20 mm perpendicular - DOWEL size 180 x 140 x 10 mm +/- 20 mm parallel and +/- 30 mm perpendicular
		110-130	100			
		135-155	125			
		160-185	155			
		185-205	175	180 x 120 x 8		
		210-230	200	180 x 140 x 10		
		235-255	225			
		260-280	250			
285-305	275					

\* - other sizes available on request

**ADVANTAGES**

- ✓ Standard grade steel S355. On request is available other materials (like stainless steel, galvanized steel, etc.) and sizes
- ✓ Plastic cover made of highly resistant ABS plastic
- ✓ Possibility to use more DOWELS per one joint (6D, 7D) to increase maximum loads on floor
- ✓ Standard space between DOWELS 600 mm (5D)