

Application

Hercuslip Composite (HSC) has been developed to fill the need for a reliable, easily applied slipjoint material on load bearing brickwork and under concrete slabs (see Fig 1-1). It is specifically designed to centralise loads and accommodate initial shrinkage and subsequent thermal movement. It is ideal for post-tensioned and cast in-situ slabs.

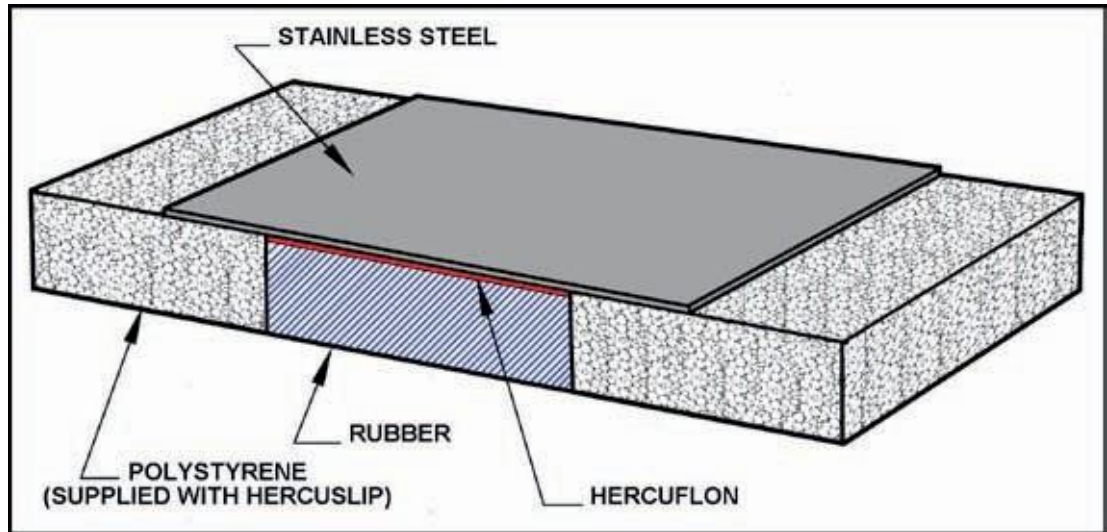


Fig 1-1 Hercuslip Composite

Materials

HSC consists of a stainless steel sheet sliding against a *Hercuflon* coated natural rubber strip, blocked out either side with polystyrene spacer strips.

Types

Five basic types of *HSC* are available (see Table 1-1). Each of these types can be provided in a variety of overall widths and expansion capacities.

Table 1-1 Types of Hercuslip Composite

Type	Slipjoint Thickness (mm)	Hercuflon/ Rubber Width (mm)	Max. Working Load (kN/m)	Max. Rotation (rads)
HSC/1	7	25	100	0.046
HSC/2	7	50	200	0.033
HSC/3	7	75	300	0.020
HSC/4	7	100	400	0.013
HSC/5	7	125	500	0.010

Design

The following design limitations are recommended:

- Coefficient of friction 0.06 - 0.07.
- Expansion capacity up to ± 60 mm (larger expansions can be arranged if required).
- Load capacities available (see Table 1-1 for Max. Working Load per type).

NOTE

HSC is primarily designed for use as a continuous slipjoint under cast in-situ slabs. In some cases it may be convenient to use it in small lengths. If these lengths are less than 200 mm, the material may become overloaded. In this case it may be better to use a

small Herculon Bearing. The standard material should NOT be used under pre-cast elements, a modified version being available for this situation. If in any doubt, please contact our Technical Department.

Installation

The *HSC* should be installed as shown in Fig 1-2 and in accordance with the following instructions:

1. Prepare the concrete seating, brick or blockwork with a wood float mortar finish so that it is reasonably level over the complete length of the strip. A metre straight edge should show no more than 3 mm variation in level along its length.
2. Hold the *HSC* in position with *Hercules Adhesive Type HBA* (a small amount at either end is sufficient), and mask the butt joints with adhesive tape.

NOTE

***Hercules Adhesive* is available in 300 gram cartridges. Each cartridge will provide enough adhesive to cover 25 metres of strip.**

3. Ensure that the corbel or seating is completely covered with slipjoint or polystyrene so that there is no chance of concrete *shorting out* the slipjoint during the pour.
4. Pour concrete, taking care not to damage the slipjoint. Direct blows with shovels, footwear or vibrators should be avoided. Tape over any damaged polystyrene.

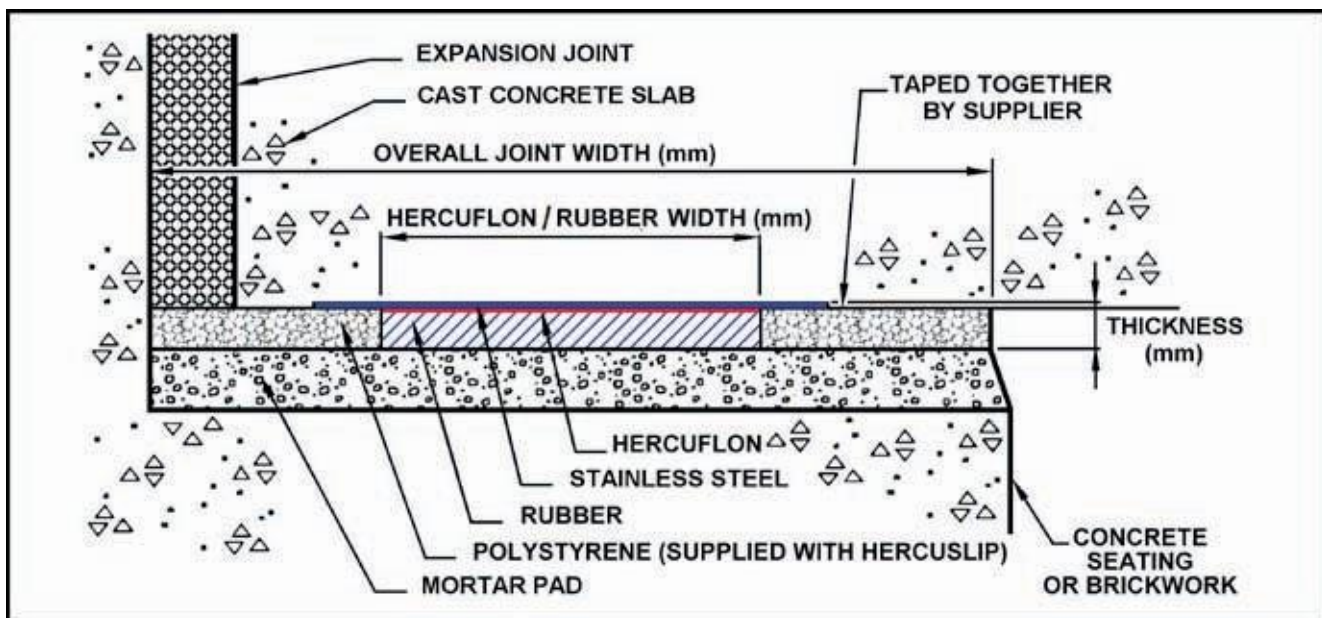


Fig 1-2 Installation of Hercuslip Composite

Ordering

The *HSC* is normally supplied in one metre lengths. If shorter lengths are required we recommend having these cut to length in our factory. Table 1-2 details the types and sizes of *HSC*. The part number is made up as follows:

HSC/1/130/10 which equates to:

HSC - *Hercuslip Composite*

1 - *Hercuslip* type

130 - Overall joint width (mm)

10 - Expansion capacity (\pm mm)

Table 1-2 Part Numbers for Hercuslip Composite (Other Widths Available)

Type	Overall Joint Width	5	10	15	20	30	40	50	60
HSC/1	75	HSC/1/75/5	HSC/1/75/10	HSC/1/75/15	HSC/1/75/20	N/A	N/A	N/A	N/A
	85	HSC/1/85/5	HSC/1/85/10	HSC/1/85/15	HSC/1/85/20	N/A	N/A	N/A	N/A
	100	HSC/1/100/5	HSC/1/100/10	HSC/1/100/15	HSC/1/100/20	HSC/1/100/30	N/A	N/A	N/A
	110	HSC/1/110/5	HSC/1/110/10	HSC/1/110/15	HSC/1/110/20	HSC/1/110/30	N/A	N/A	N/A
	130	HSC/1/130/5	HSC/1/130/10	HSC/1/130/15	HSC/1/130/20	HSC/1/130/30	HSC/1/130/40	N/A	N/A
	150	HSC/1/150/5	HSC/1/150/10	HSC/1/150/15	HSC/1/150/20	HSC/1/150/30	HSC/1/150/40	HSC/1/150/50	N/A
	180	HSC/1/180/5	HSC/1/180/10	HSC/1/180/15	HSC/1/180/20	HSC/1/180/30	HSC/1/180/40	HSC/1/180/50	HSC/1/180/60
	200	HSC/1/200/5	HSC/1/200/10	HSC/1/200/15	HSC/1/200/20	HSC/1/200/30	HSC/1/200/40	HSC/1/200/50	HSC/1/200/60
	230	HSC/1/230/5	HSC/1/230/10	HSC/1/230/15	HSC/1/230/20	HSC/1/230/30	HSC/1/230/40	HSC/1/230/50	HSC/1/230/60
HSC/2	100	HSC/2/100/5	HSC/2/100/10	HSC/2/100/15	HSC/2/100/20	N/A	N/A	N/A	N/A
	110	HSC/2/110/5	HSC/2/110/10	HSC/2/110/15	HSC/2/110/20	N/A	N/A	N/A	N/A
	130	HSC/2/130/5	HSC/2/130/10	HSC/2/130/15	HSC/2/130/20	HSC/2/130/30	N/A	N/A	N/A
	150	HSC/2/150/5	HSC/2/150/10	HSC/2/150/15	HSC/2/150/20	HSC/2/150/30	N/A	N/A	N/A
	180	HSC/2/180/5	HSC/2/180/10	HSC/2/180/15	HSC/2/180/20	HSC/2/180/30	HSC/2/180/40	N/A	N/A
	200	HSC/2/200/5	HSC/2/200/10	HSC/2/200/15	HSC/2/200/20	HSC/2/200/30	HSC/2/200/40	HSC/2/200/50	HSC/2/200/60
	230	HSC/2/230/5	HSC/2/230/10	HSC/2/230/15	HSC/2/230/20	HSC/2/230/30	HSC/2/230/40	HSC/2/230/50	HSC/2/230/60
	250	HSC/2/250/5	HSC/2/250/10	HSC/2/250/15	HSC/2/250/20	HSC/2/250/30	HSC/2/250/40	HSC/2/250/50	HSC/2/250/60
	270	HSC/2/270/5	HSC/2/270/10	HSC/2/270/15	HSC/2/270/20	HSC/2/270/30	HSC/2/270/40	HSC/2/270/50	HSC/2/270/60
300	HSC/2/300/5	HSC/2/300/10	HSC/2/300/15	HSC/2/300/20	HSC/2/300/30	HSC/2/300/40	HSC/2/300/50	HSC/2/300/60	

Table 1-2 Part Numbers for Hercuslip Composite (Other Widths Available)

Type	Overall Joint Width	5	10	15	20	30	40	50	60
HSC/3	130	HSC/3/130/5	HSC/3/130/10	HSC/3/130/15	HSC/3/130/20	N/A	N/A	N/A	N/A
	150	HSC/3/150/5	HSC/3/150/10	HSC/3/150/15	HSC/3/150/20	N/A	N/A	N/A	N/A
	180	HSC/3/180/5	HSC/3/180/10	HSC/3/180/15	HSC/3/180/20	HSC/3/180/30	HSC/3/180/40	N/A	N/A
	200	HSC/3/200/5	HSC/3/200/10	HSC/3/200/15	HSC/3/200/20	HSC/3/200/30	HSC/3/200/40	HSC/3/200/50	N/A
	230	HSC/3/230/5	HSC/3/230/10	HSC/3/230/15	HSC/3/230/20	HSC/3/230/30	HSC/3/230/40	HSC/3/230/50	HSC/3/230/60
	250	HSC/3/250/5	HSC/3/250/10	HSC/3/250/15	HSC/3/250/20	HSC/3/250/30	HSC/3/250/40	HSC/3/250/50	HSC/3/250/60
	300	HSC/3/300/5	HSC/3/300/10	HSC/3/300/15	HSC/3/300/20	HSC/3/300/30	HSC/3/300/40	HSC/3/300/50	HSC/3/300/60
	350	HSC/3/350/5	HSC/3/350/10	HSC/3/350/15	HSC/3/350/20	HSC/3/350/30	HSC/3/350/40	HSC/3/350/50	HSC/3/350/60
HSC/4	150	HSC/4/150/5	HSC/4/150/10	N/A	N/A	N/A	N/A	N/A	N/A
	180	HSC/4/180/5	HSC/4/180/10	HSC/4/180/15	HSC/4/180/20	N/A	N/A	N/A	N/A
	200	HSC/4/200/5	HSC/4/200/10	HSC/4/200/15	HSC/4/200/20	HSC/4/200/30	N/A	N/A	N/A
	230	HSC/4/230/5	HSC/4/230/10	HSC/4/230/15	HSC/4/230/20	HSC/4/230/30	HSC/4/230/40	HSC/4/230/50	N/A
	250	HSC/4/250/5	HSC/4/250/10	HSC/4/250/15	HSC/4/250/20	HSC/4/250/30	HSC/4/250/40	HSC/4/250/50	HSC/4/250/60
	300	HSC/4/300/5	HSC/4/300/10	HSC/4/300/15	HSC/4/300/20	HSC/4/300/30	HSC/4/300/40	HSC/4/300/50	HSC/4/300/60
	350	HSC/4/350/5	HSC/4/350/10	HSC/4/350/15	HSC/4/350/20	HSC/4/350/30	HSC/4/350/40	HSC/4/350/50	HSC/4/350/60
	400	HSC/4/400/5	HSC/4/400/10	HSC/4/400/15	HSC/4/400/20	HSC/4/400/30	HSC/4/400/40	HSC/4/400/50	HSC/4/400/60
HSC/5	180	HSC/5/180/5	HSC/5/180/10	N/A	N/A	N/A	N/A	N/A	N/A
	200	HSC/5/200/5	HSC/5/200/10	HSC/5/200/15	HSC/5/200/20	N/A	N/A	N/A	N/A
	230	HSC/5/230/5	HSC/5/230/10	HSC/5/230/15	HSC/5/230/20	HSC/5/230/30	HSC/5/230/40	N/A	N/A
	250	HSC/5/250/5	HSC/5/250/10	HSC/5/250/15	HSC/5/250/20	HSC/5/250/30	HSC/5/250/40	HSC/5/250/50	N/A
	300	HSC/5/300/5	HSC/5/300/10	HSC/5/300/15	HSC/5/300/20	HSC/5/300/30	HSC/5/300/40	HSC/5/300/50	HSC/5/300/60
	350	HSC/5/350/5	HSC/5/350/10	HSC/5/350/15	HSC/5/350/20	HSC/5/350/30	HSC/5/350/40	HSC/5/350/50	HSC/5/350/60
	400	HSC/5/400/5	HSC/5/400/10	HSC/5/400/15	HSC/5/400/20	HSC/5/400/30	HSC/5/400/40	HSC/5/400/50	HSC/5/400/60