

ISEDIO

ARMOURDOWELS & UNIDOWELS

Technical Datasheet

Isedio UNIDOWELS & UNISLEEVES are load transfer mechanisms specifically designed to provide load transfer at slab panel edges, where the slab panels have been cast against timber shuttering.

The UNISLEEVE is simply nailed to the timber formwork at the specified spacings and depth. Concrete is cast, encasing the UNISLEEVE. Once the concrete has sufficiently cured, the timber formwork is carefully removed and either 6mm x 115mm x 115mm or 6mm x 150mm x 150mm UNIDOWELS are fitted as specified.

Isedio ARMOURDOWELS and ARMOURSLEEVES provide the same function as UNIDOWELS & UNISLEEVES and are used when greater load transfers are required.

They are available in 8mm or 12mm thickness. Typically, slab depths will be greater as will the drying shrinkage forces applied to the sleeve. In order to resist these crushing forces, ARMOURSLEEVES are installed over an ARMOURSLEEVE Insert. Firstly, the ARMOURSLEEVE Insert is firmly screwed to the timber formwork at the correct spacings and depths. The inserts remain on the formwork for repeated use. ARMOURSLEEVES are then pushed on to the inserts. If necessary they can be nailed to the formwork. Concrete is cast, encasing the ARMOURSLEEVES. Once the concrete has cured sufficiently, the timber formwork is carefully removed and the inserts remain attached to the formwork. The ARMOURDOWELS are then pushed in to the sleeve.

Dowels are available in plain steel, hot dip galvanised steel and stainless steel.



BENEFITS

- Greater load transfer capacities than round or square dowel bars
- Sleeve design facilitates much greater freedom of movement of dowel (min. 20mm lateral movement)
- Dowel and sleeve design can provide up to 30mm of joint movement
- Virtually zero vertical displacement between adjacent slab panels
- Eliminates snagging of removing timber formwork over round or square dowel bars
- Wider spacings compared with round or square dowel bars means fewer dowels required, less work and quicker completion
- No drilling of timber required
- Certainty that dowel will remain horizontal during casting unlike round or square dowel bars
- No more spalled faces or edges when trying to pull timber over long dowels
- Improved site safety as no long dowel bars protruding along slab edge

MATERIAL SPECIFICATION

Component	Material
UNIDOWEL	6mm - S275 (275 N/mm ²) Steel to BS EN 10025-2:2004 or as specified
ARMOURDOWEL	8mm & 12mm - S355 (355 N/mm ²) Steel to BS EN 10025-2:2004 or as specified
UNISLEEVE	ABS
ARMOURSLEEVE	8mm & 12mm - PP
ARMOURSLEEVE Insert	8mm & 12mm - PP

TECHNICAL DATA

Description	Dimension & Tolerance
UNIDOWEL	6mm x 115mm x 115mm 6mm x 150mm x 150mm
ARMOURDOWEL	8mm x 150mm x 150mm 12mm x 150mm x 150mm
General Dimensional Tolerance	Dimensions < 12mm +/-0.5mm Dimensions > 12mm +/-1.0mm

Information on load transfer capacities can be found on the Load Transfer Capacity Datasheet.

PACKAGING INFORMATION

Dowels	
Dowel	Quantity and approx. weight per pallet
UNIDOWEL - 6mm x 115mm x 115mm	1,000 off – 650 kg
UNIDOWEL - 6mm x 115mm x 115mm	1,000 off – 1,090 kg
ARMOURDOWEL - 8mm x 150mm x 150mm	900 off – 1,300 kg
ARMOURDOWEL - 8mm x 150mm x 150mm	600 off – 1,300 kg

Sleeves and Inserts	
Sleeves and Insert	Quantity and approx. weight per box (580mm x 320mm x 385mm)
6mm UNISLEEVE	120 off – 14.5 kg
8mm ARMOURSLEEVE	240 off – 16.5 kg
8mm ARMOURSLEEVE INSERT	300 off – 10 kg
12mm ARMOURSLEEVE	240 off – 18 kg
12mm ARMOURSLEEVE	150 off – 10.5 kg

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