

ISEDIO SHIELDJOINT ADJUSTABLE

Technical Datasheet

Isedio ShieldJoint Adjustable is a zero impact arris protection, leave-in-place formwork, load transfer and sealant-free joint system suitable for heavy duty industrial concrete floors.

Isedio ShieldJoint is unique since it eliminates impact across the joint from Mechanical Handling Equipment (MHE) such as forklift trucks, but additionally it does not require any joint sealing. Its clever design ensures that no debris can enter into the vertical gap between the two slabs. This design feature is useful in foodstuff warehouses or food preparation areas where pest control is paramount (available in stainless steel).

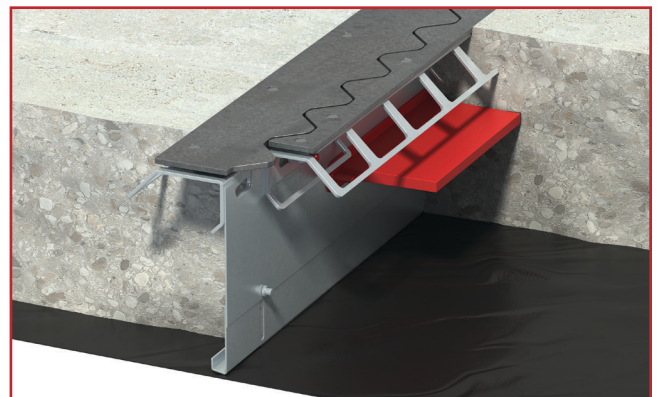
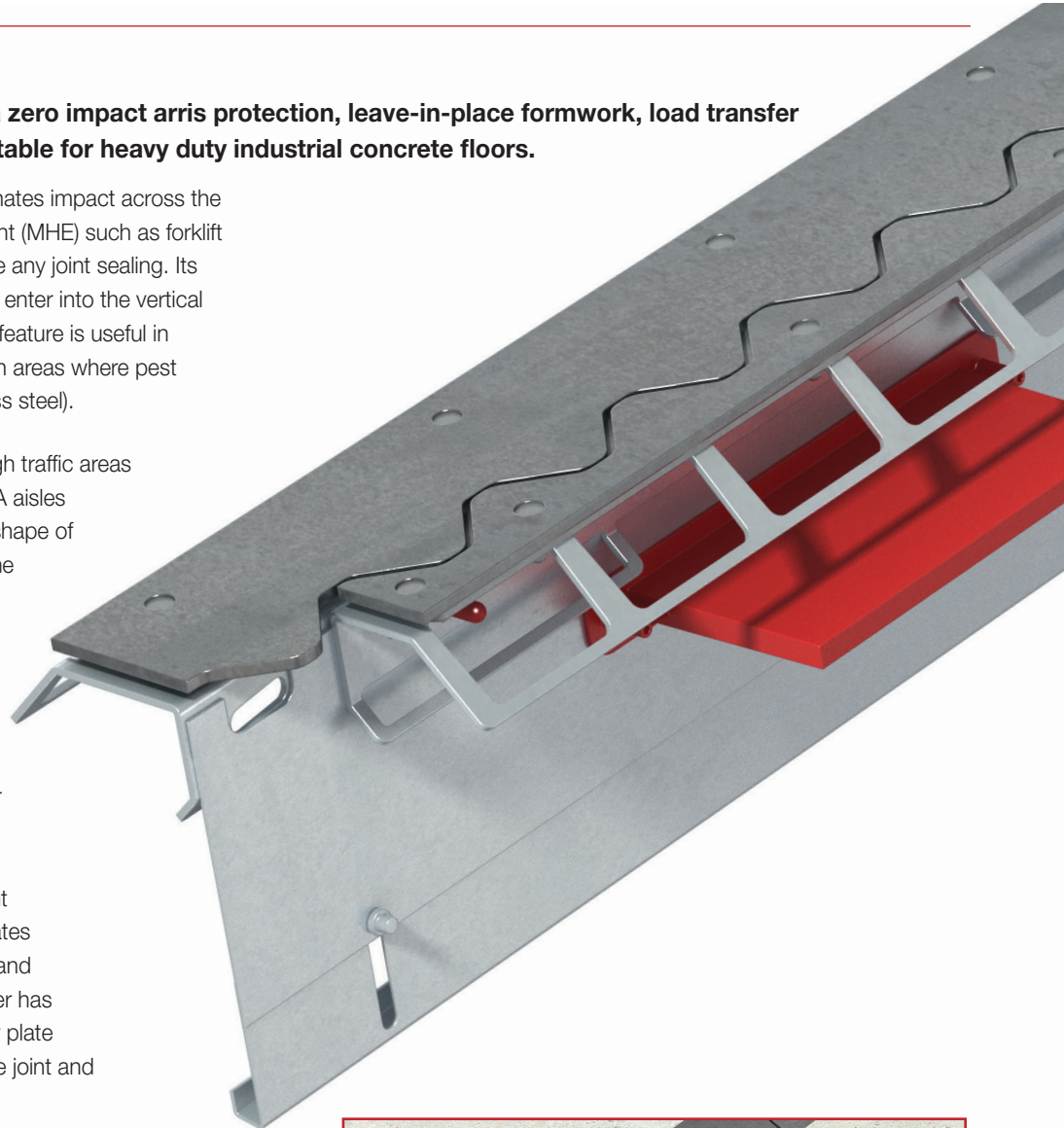
ShieldJoint is an excellent solution for high traffic areas such as loading docks, doorways or VNA aisles where a seamless floor is required. The shape of the wave is engineered such that even the smallest wheeled pallet trucks do not cause an impact. A floor can be future-proofed for other end uses by installing ShieldJoint.

The joint system comprises two top wave plates, a divider plate, load transfer plate dowels and sleeves. The joint is designed such that once cast in-situ, as the two slab panels either side of the joint begin to cure and shrink, the joint separates such that one slab panel has the sleeve and one half top wave assembly and the other has the other half top wave assembly, divider plate and dowel. The dowel bridges across the joint and is embedded in both slab panels.

Formwork for casting a concrete slab is achieved by the vertical divider plate which supports the top wave plate edge protection and load transfer plate dowels.

Slab arris protection is provided by way of the top wave plates which create a seamless floor thus eliminating impact loads when traversed. The top wave plates are anchored to the concrete by perforated angled wings.

Intersections of joints are accommodated by a common intersection post that creates a corner, tee and 4 way.



LOAD TRANSFER MECHANISM

Load transfer across the joint is achieved by asymmetric plate dowels and sleeves. The plate dowels are attached to the vertical divider plate and the sleeves are held in place under friction and are detachable as the joint opens up. Using Isedio ShieldJoint Adjustable ensures that shear loads are safely transferred across the joint through the plate dowels.

MATERIAL SPECIFICATION

Component	Material
Top Plate	Hot Rolled and Cold Rolled Steel (can be supplied in Stainless Steel or Hot Dip Galvanised)
Frangible Fastener	Nylon
Divider Plate	Steel DC01 to BS EN 10130:2006
Load Transfer Dowel Plate	6mm, 8mm & 12mm - S275 & S355 Steel to BS EN 10025-2:2004
Sleeve	6mm, 8mm & 12mm - PP

TECHNICAL INFORMATION

Description	Dimension & Tolerance
Joint Length	1,950mm +/- 2.0mm
Straightness	+/- 0.5mm in 600mm
General Dimensional Tolerance	Dimensions < 12mm +/- 0.5mm Dimensions > 12mm +/- 2.0mm

The Isedio load transfer system complies with TR34, 4th edition, and information on the design capacities are available in the Isedio Load Transfer Information sheet.

3 x 6mm Dowels (650mm Centres)			
Joint (mm)	Quantity and metres of joint per bundle	Approx. bundle weight including packaging (kg)	Max. no. of bundles, weight and metres per truck
100 - 130mm	45 off – 87.75m	1,398kg	17 Bundles - 23,765kg - 1,491.75m
130 - 150mm	45 off – 87.75m	1,398kg	17 Bundles - 23,765kg - 1,491.75m
150 - 200mm	45 off – 87.75m	1,443kg	16 Bundles - 23,087kg - 1,404m
200 - 250mm	36 off – 70.20m	1,274kg	18 Bundles - 22,938kg - 1,263.60m
250 - 300mm	27 off – 52.65m	1,025kg	20 Bundles - 20,495kg - 1,053m
300 - 350mm	18 off – 35.10m	721kg	20 Bundles - 14,424kg - 702m

3 x 8mm Dowels (650mm Centres)			
Joint (mm)	Quantity and metres of joint per bundle	Approx. bundle weight including packaging (kg)	Max. no. of bundles, weight and metres per truck
100 - 130mm	45 off – 87.75m	1,445kg	16 Bundles - 23,120kg - 1,404m
130 - 150mm	45 off – 87.75m	1,445kg	16 Bundles - 23,120kg - 1,404m
150 - 200mm	45 off – 87.75m	1,490kg	16 Bundles - 23,840kg - 1,404m
200 - 250mm	36 off – 70.20m	1,312kg	18 Bundles - 23,616kg - 1,263.60m
250 - 300mm	27 off – 52.65m	1,053kg	20 Bundles - 21,060kg - 1,053m
300 - 350mm	18 off – 35.10m	740kg	20 Bundles - 14,800kg - 702m

3 x 12mm Dowels (650mm Centres)			
Joint (mm)	Quantity and metres of joint per bundle	Approx. bundle weight including packaging (kg)	Max. no. of bundles, weight and metres per truck
100 - 130mm	45 off – 87.75m	1,625kg	14 Bundles - 22,750kg - 1,228.50m
130 - 150mm	45 off – 87.75m	1,670kg	14 Bundles - 23,380kg - 1,228.50m
150 - 200mm	45 off – 87.75m	1,715kg	13 Bundles - 22,295kg - 1,140.75m
200 - 250mm	36 off – 70.20m	1,420kg	16 Bundles - 22,720kg - 1,123.20m
250 - 300mm	27 off – 52.65m	1,107kg	20 Bundles - 22,140kg - 1,053m
300 - 350mm	18 off – 35.10m	776kg	20 Bundles - 15,520kg - 702m

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