

# Stacker Packers Engineered Levelling Shims



Stacker Packers are load bearing engineered levelling shims with a unique interlocking design. Independently tested, they ensure the shim stack remains stable and locked into place during installation. Watch our **explainer videos** to see how they perform.

## Applications

- ✓ Precast Concrete Components
- ✓ Steel Frame Buildings
- ✓ Cladding
- ✓ Modular Buildings
- ✓ Bathroom Pods



## Features and Benefits

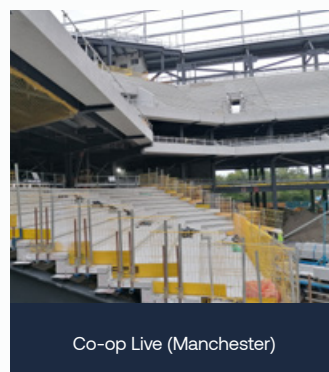
- **Modular** – Available in 2mm, 3mm, 5mm and 10mm
- **Unique** – Perimeter profile allows adjustment of the shim stack away from the trapping zone. With other systems this isn't possible
- **Safe** – Inbuilt dowels allow the shims to interlock horizontally and vertically, forming a safe and stable shim structure, which doesn't slip against each other under load
- **Stability** – With sideways connection, the shims can be increased in length and width to give even greater stability
- **Design** – Projecting inbuilt dowels are designed to depress under load, leaving a flat surface with no high points
- **Strong** – High compressive strength, impact resistant and shatterproof
- **Lightweight** – Weighing 12kg, a box of Stacker Packers can be carried. The equivalent volume of steel shims weigh circa 180kg, making them difficult to move around site



## Safer Stronger Solution

Manufactured from virgin High Impact Polystyrene (HIPS), complete with UV stabilisers, Stacker Packers have a high compressive strength. The interlocking side profile also allows easy positioning and adjustment of the shims without site operatives trapping their fingers.

Megastructures include Everton's Bramley Moore stadium, Fulham, Anfield and Emirates football clubs, Manchester's Co-op Live, Sandwell Aquatics (2022 Commonwealth Games) and La Sagrada Familia in Barcelona.



Co-op Live (Manchester)



La Sagrada Familia Cathedral  
(Barcelona)

# Stacker Packers Product Range

Product Code	Dimensions	Colour	Quantity Per Box
MSP2	35mm x 35mm x 2mm	Brown	2000
MSP3	35mm x 35mm x 3mm	Blue	1500
MSP5	35mm x 35mm x 5mm	White	1000
MSP10	35mm x 35mm x 10mm	Black	600
SPK2	70mm x 70mm x 2mm	Brown	1000
SPK3	70mm x 70mm x 3mm	Blue	750
SPK5	70mm x 70mm x 5mm	White	500
SPK10	70mm x 70mm x 10mm	Black	250

## Materials

During the design phase, we reviewed the material within standard shims and found in most cases, manufacturers use a variety of relatively low quality, recycled, substandard materials. These materials are often combined with a blowing agent to keep the cost down, which results in formed air voids within the material, which has no compressive strength.

To ensure high quality and consistency in manufacture, **Stacker Packers** utilise virgin High Impact Polystyrene (HIPS), resulting in an engineered solution to a critical structural interface between components. The addition of UV stabilisers overcomes the yellowing and brittleness associated with prolonged exposure to UV rays of unmodified HIPS.



## Independent Tests

HCC County Highways Laboratory carried out simple compression tests and TWI Ltd carried out compression tests whereby the stress/strain relationship was analysed and recorded during the test. Shim stack heights ranged from 25mm to 100mm. Under a 14.65T load test, the 50mm stack height from HCC and TWI recorded post-test vertical deformation at -0.38% and -0.36% respectively.

We recommend for shim stacks up to 50mm high the Stacker's compressive strength value should be taken as: 30N/mm<sup>2</sup> (under factored loads).



Photo of 80mm shim stack under 143.8kN load

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Watch our  
**explainer**  
videos here

