About RCR Flooring Products

RCR Flooring Products is the organisation behind some of the world’s best-known industrial flooring brands.

We design, manufacture and supply a wide range of products used in the creation of industrial floors, including RINOL resin flooring systems, Permaban armoured joints, and Rocland surface hardeners.

The three brands are united by a commitment to product excellence, customer support and worldwide service.

Our products have been used in factories and distribution centres for many of the world’s leading logistics, retail and commercial companies.

Permaban armoured joints, manufactured under ISO 45001:2018 health & safety management, are CE marked (see website for details). Also, all the products shown on the reverse of this leaflet are CE marked (see website for details).

RCR is proud to list many of the leading logistics, architects and contractors.


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Permaban armoured joints (properly called ‘arm-in-arm joint systems’) offer four important benefits:

• They act as a permanent formwork, creating a secure boundary or day joint during the concrete pour.
• They allow the concrete slab to contract in a controlled way, to prevent random cracks occurring.
• They protect the construction joint from impact damage once the building is in use, saving the expense of repair.
• They allow efficient load transfer between concrete slabs, for a stable and durable floor.

How armoured joints work

Armoured joints are used to create a boundary in which to contain a day’s concrete pour. As the concrete sets and contracts, the two sides of the joint (held together with frangible rivet connectors) are gradually pulled apart horizontally.

How armoured joints work

Consider the type of vehicle wheel being used, and traffic frequency and speed (‘duty’). Vehicle direction determines how much impact a joint endures. Straight joints such as AlphaJoint are Eclipse are fine where vehicles won’t cross directly. Otherwise, choose Signature or Wave to prevent impact.

Traffic

Guidance on choosing the right joint

Building use

When choosing a joint system, consider the building’s versatility, and whether the building will have one use in its lifetime, or if this may change. You can future-proof the floor by choosing a versatile joint, such as Signature or Wave. These allow vehicles to cross the floor freely in any direction, now and in future.

For example, using Signature and Eclipse together in a specification will provide superior joint protection, but with a less than 1% increase in material cost. Using Signature alone means only a 2% increase in material cost. But remember that any additional up-front costs may be recouped over the life of the joint.

Building use

Guidance on choosing the right joint

Perfomance - lifetime performance.

With a 3% increase in material cost, using Signature and Eclipse together in a specification will provide superior joint protection, but with a less than 1% increase in material cost. Using Signature alone means only a 2% increase in material cost. But remember that any additional up-front costs may be recouped over the life of the joint.

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There is a risk of impact damage if a vehicle crosses a straight joint at 90°. This is because the wheels drop momentarily in the gap between the two sides of the joint, causing damage to the surrounding concrete, leading to maintenance costs and downtime. A shaped joint avoids this impact and has no straight lines, so prevents impact.

Visit www.rcrflooringproducts.com for details.

Our comprehensive service

We are always happy to help specifiers and contractors with product choice and installation advice, including attending planning and site meetings.

RCR Flooring Products also offers complimentary products for industrial floors, including RINOL resin flooring systems and Rocland surface hardeners.

Visit www.rcrflooringproducts.com for details.

The product information given in this leaflet is a condensed, quick-reference guide. For full specifications, product options, health & safety guidance and installation guidance on choosing the right joint

Guidance on choosing the right joint

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Permaban Signature® is an armoured joint like no other. The clever half-hexagon shape prevents the wheels of materials handling vehicles from dropping into the gap between the two edges of the joint. Because there’s no impact, there’s no damage to either the joint or the truck. Winner of Most Innovative New Product, UK Concrete Show 2012.

Ideal for:
- General warehousing/distribution centres
- Production facilities
- Heavy and light industry

Specific areas of use:
- Defined movement areas
- Transfer aisles, where vehicles cross joints at 90°
- Dock levellers
- Doorway protection
- Jointless floors

'Duty' / wheel type:
- Very heavy duty (small, hard wheels, i.e. motorised pallet trucks)
- Heavy duty (small, hard wheels)

Permaban Eclipse® is a tough, hard-working armoured joint for heavy-duty applications. Alkali-resistant steel triangular section reinforces the top edge of the joint, so it can withstand heavy and persistent traffic. The full-height divider plate adds to its strength and rigidity, making Eclipse a versatile and economical alternative to a traditional-style joint. Recognised as standard for internal and external use.

Ideal for:
- General warehousing/distribution centres
- Waste transfer stations
- Cold stores
- Production facilities
- Heavy and light industry

Specific areas of use:
- Defined movement areas
- Transfer aisles, where vehicles cross joints at 90°
- Deck levellers
- Doorway protection
- Post-tensioned slabs
- Jointless floors

'Duty' / wheel type:
- Very heavy duty (small, hard wheels, i.e. motorised pallet trucks)
- Heavy duty (small, hard wheels)

AlphaJoint® Classic 4010 is well known as the ‘industry standard’ armoured joint, this remains a popular choice for many projects worldwide due to its strength and versatility. It is now supplied with Permaban’s Universal Divider Plate, with pre-set positions which allow installers to choose the correct joint height, then use excess stock on the next job site.

Ideal for:
- General warehousing/distribution centres
- Production facilities
- Heavy and light industry

Specific areas of use:
- Free movement areas
- Transfer aisles
- Doorway protection
- Jointless floors

'Duty' / wheel type:
- Heavy duty (small, hard wheels)

BetaJoint® Range is tough and sturdy, yet remarkably light – the BetaJoint range offers medium-duty construction joint protection in concrete floors and pavements. Continuous concrete ties ensure firm anchoring into the concrete along its entire length. Choose BetaExpansion (pictured) for external slabs; and BetaEdge if using traditional removable timber or steel formwork.

Ideal for:
- Light industry
- Pedestrian traffic areas

Specific areas of use:
- Jointless floors
- Pedestrian traffic areas
- As a leave-in-place screed rail
- Free movement areas
- Internal use

'Duty' / wheel type:
- Medium duty (pneumatic tyres)

SignatureSlide's clever double-plate top ensures no gap is exposed when the joint opens. Designed to cover larger gap sizes, it is ideal for jointless floors, post-tensioned floors and cold/freezer stores, and also where debris or substances might enter the gap. Continuous concrete ties ensure firm anchoring.

Ideal for:
- Cold stores and freezer stores
- Food manufacturing
- Heavy and light industry
- General warehousing

Specific areas of use:
- Jointless floors
- Post-tensioned slabs
- Defined movement areas
- Internal use

'Duty' / wheel type:
- Heavy duty (small, hard wheels)