

INNOVATIVE ROOFTOP PARKING

WESTFIELD
SHOPPING CENTERS



‘MAKING EFFICIENT USE OF THE HIGHER GROUND’

Zoontjens installed the very first rooftop carpark in 1977. The 70’s were a time of change, increased mobility and the start of the Urban Revolution, seeking a better use of space. With over 40 years’ experience, Zoontjens is dedicated to providing rooftop paving solutions for both vehicle and pedestrian applications.

Pardak® is an innovative decking system for roofs accommodating intensive domestic car traffic and parking, based on tensioned precast concrete slab technology. More than 2 million square metres have been installed around Europe and development continues with new ranges to meet the latest demands.

Rooftop parking is an increasingly popular design choice, making efficient use of the higher ground, and freeing space for landscaping and added value areas in our cities.





SHOPPING STARTS WITH EASY PARKING AND ACCESS

THE ROOF PURPOSE

- Building Protection
- Building Insulation
- Construction Storage
- Membrane protection
- Phased Construction
- Easy Parking
- Easy Access
- Easy Maintenance





SHOPPING CENTER WESTFIELD STRATFORD CITY, LONDON

Surface 15,000 m²
Product Pardak®90
Year 2011



An excellent example of our unique innovative solution include Westfield Stratford City – the largest urban shopping centre in Europe and the gateway to London’s Olympic Park – where around 15,000m² of the well-established Pardak®90 were installed.

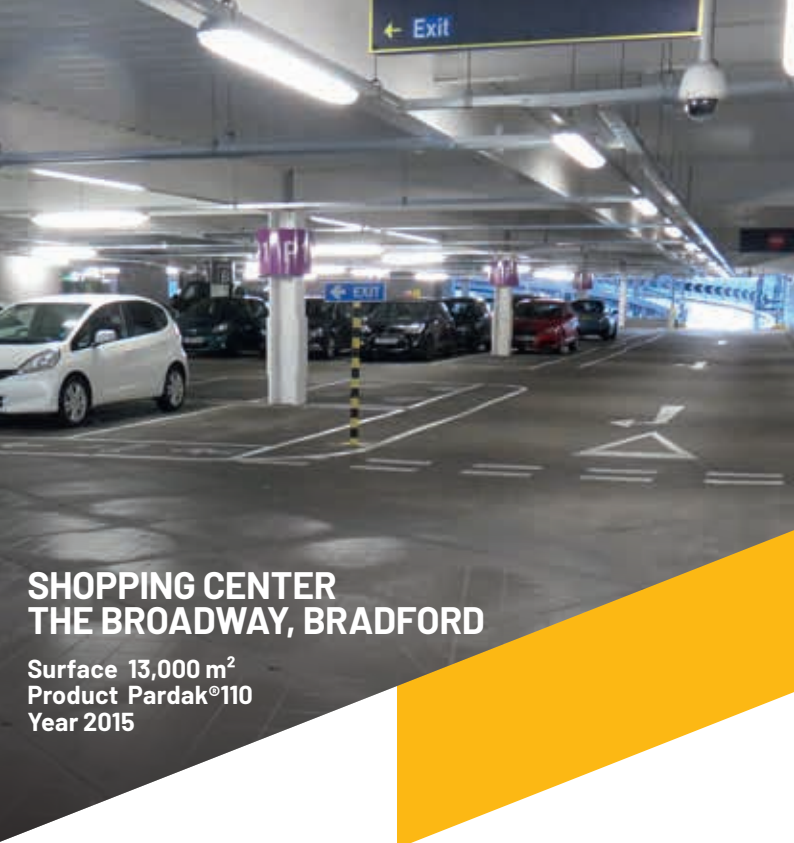
The Pardak®110 range, replaced Pardak®90 and takes these principles further with improvements to accommodate today’s increasing trafficking levels and heavier cars including SUVs. The main changes are corner pieces enabling accurate slab height levelling and increased slab sizes. The inclusion of an innovative tensioning element enables the Pardak®110 to reduce sound generation from dynamic loading like shopping trolleys.

THE PARDAK SYSTEM WORKS VERY WELL FOR THE WESTFIELD CAR PARK MODEL FOR A NUMBER OF REASONS WHICH INCLUDE EASE OF INSTALLATION, APPEARANCE AND LONGEVITY.

“The rationale behind our selection of the Pardak product on our car parks above retail are the following:

- We prefer no insulation on the ceilings of retail, where it is prone to damage during tenant fitout. The high compression insulation is placed above the membrane and below the Pardak
- Drainage gullies can be placed above our Back of House areas (not directly into tenancies) with rain water percolating below the Pardak system. It can be laid flat and not have gullies that would be prone to vehicle damage and blockage.
- Movement joints are below the Pardak system.
- It is an open system so it allows the area to be flooded to combat any fire situations
- The system with insulation can be easily lifted and replaced for waterproof membrane repair.
- Installation in part without construction joints.
- No requirements using wet trades.”

Ian Ogden
Design Director at Westfield Europe Ltd



**SHOPPING CENTER
THE BROADWAY, BRADFORD**

Surface 13,000 m²
Product Pardak®110
Year 2015

**CONVENIENT
PARKING, ACCESS,
PROTECTION AND
MAINTENANCE**



**SHOPPING CENTER WESTFIELD
LONDON, WHITE CITY**

Surface 10,000 m²
Product Pardak®110
Year 2018

INNOVATIVE SUSTAINABLE ROOFTOP PARKING

The Pardak® system consists of high quality, vacuum formed concrete slabs supported on pressure distributor pads with adjustable tensioning elements. Each slab is profiled on the sides with drainage slots and supplied as standard with a raised diamond pattern. A reinforced version is also available to accommodate emergency vehicle access.

Zoontjens is also able to incorporate a host of parking accessories including lamppost elements, speed limiters, buffers and inspection slabs. Further to some of Europe's largest shopping centres, its accessories are commonly also found in redevelopment projects, heavy goods traffic and car dealerships. Zoontjens maintains its own in-house design capability, which allows it to work with designers and clients to develop unique solutions to bespoke requirements.





The Broadway, Bradford

PARDAK®110

Pardak®110 is the ideal rooftop car park system for small to very large rooftop car parks, with high traffic intensity and numerous parking movements, such as shopping centres, supermarkets and public buildings.

STABILITY

The performance requirements for roofs on which vehicles drive, brake, turn and park are strict. Large rooftop car parks must be able to cope with higher speeds and intensive traffic flows. The Pardak®110 slab was specially developed to guarantee even higher stability.

REFURBISHMENT

The Pardak® system is ideal for refurbishment of rooftop car parks. Projects can be implemented in phases, resulting in a minimal loss of parking facilities while the work is being carried out. The rooftop car park can be used immediately after installation.

- Innovative tensioned precast concrete slab technology
- Prefabricated systems for fast all-weather installation
- Accessible, demountable and re-usable where needed
- Free from surface water for safety and SUDS compatible
- At least 30 years expected low-maintenance service life
- Excellent whole life cost benefits when compared against other traditional methods of construction



WHAT IF THE WORLD WERE TWICE AS BIG?

It can be, as far as we're concerned. Our world, twice as big. A world that we are helping to design and construct perfectly with our roof slab systems. Our many years of experience have made us the number one expert in rooftop paving. For sustainable roofs, livable roofs for socialising.

We interact with architects and contractors every day. With roofers and project developers: Creators and constructors. We listen to them, work with them and advise them. That's why we're the number one party with the best rooftop vision. It's our higher ground.

zoontjens.com

