

made
in
germany

STRAIL®

THE NUMBER



LEVEL CROSSING

TYPICAL | STRAIL

The brand **STRAIL®** already carries the level crossing in its name: **street meets rail**.

The first **STRAIL®** level crossing was installed in 1976 and already back then it was done in close cooperation with the client.

Since then, we have been working together with our customers on our **STRAIL®** level crossings, optimizing their functionality. In the meantime, more than 80,000 level crossings have been delivered and installed worldwide. Our focus has always been on the sustainable further development

of our **STRAIL®** products and their material properties.

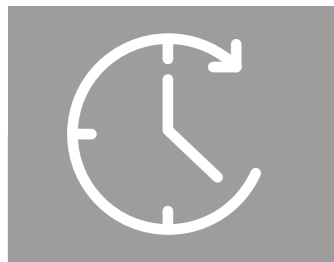
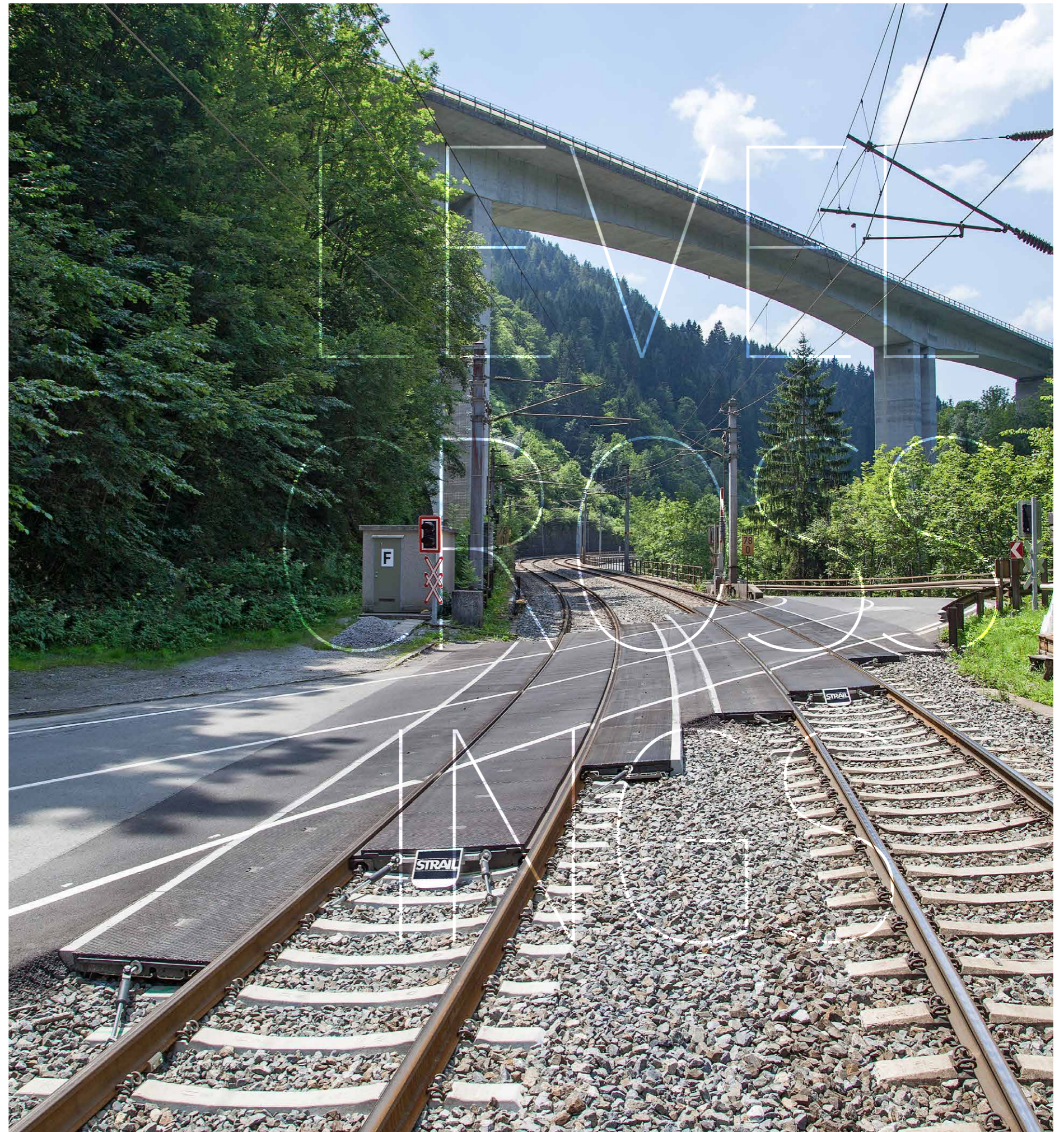
In doing so, we keep an eye on a steadily increasing share of the high-quality secondary raw materials used, which are processed together with virgin rubber for our fully recyclable products.

Our special, unique and patented manufacturing process guarantees a long service life and a high degree of robustness. Even the first **STRAIL®** panels were produced by means of vulcanization at high temperatures under high pressure.

The manufacturing process has also been constantly developed and optimised over the years. What used to be spread and pressed manually into moulds is now done by robots and hydraulics.

A wide variety of designs meet all requirements in terms of traffic, load classes and climatic conditions.

When it comes to level crossings, STRAIL® is the number 1.



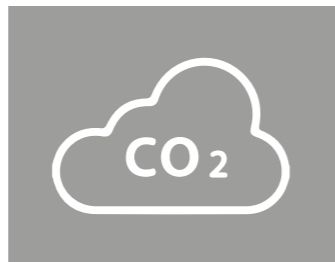
FAST & UNCOMPLICATED

Fast installation and short blocking times pays off for you in hard cash!



SAFE & RELIABLE

STRAIL® for different loads, climatic conditions and individual designs



LOW CARBON FOOTPRINT

Use of virgin rubber in combination with high-quality secondary raw materials



LONG SERVICE LIFE

Proven since 1976 with virtually maintenance-free level crossing systems



CUSTOMER-ORIENTED & FLEXIBLE

Our field service is there for you nearly around the clock, worldwide.



INSTALLED WORLDWIDE

More than 80,000 times decades of experience ensure technically mature systems

SIMPLY | FAST

Traffic should flow, quickly and freely. With **STRAIL®** you are simply fast: starting with the planning, through the installation to the virtually maintenance-free system.

You can install a nine-metre-long level crossing in just three hours, with four to six workers and, if required, without machines.

For maintenance work **STRAIL®** can be removed and reinstalled quickly and with little effort. And short blocking times pay off in hard cash.

Plus, our experts are available to you around the world, nearly around the clock, and are ready to help you in word and deed. Typical **STRAIL®**.



The installation of a level crossing is divided into three essential steps*

1. Preparation of the track

Correct height & side position, tamping, welding and, if necessary, replace the track fastenings.

2. Installation of inner panels

Insert inner panels, press them under the rail head using the **STRAIL®** installation lever or an excavator, install further panels and tight them together with our lock tight system.

3. Installation of outer panels

NEW design with **STRAIL® concrete broad kerbstone.**

No prefabricated foundation required.

Substrate: highly-compacted ballast. Lay B-kerb on top. Install outer panels.

Time saving: **approx. 40 - 50% > shorter blocking times > saves money!**

CLASSIC DESIGN with **prefabricated foundation and T-kerbstone.**

Insert the prefabricated foundation, place the kerbstone with a mortar levelling layer on top. Observe the curing times. Install the outer panels.

Alternative to the classic T-kerbstone.

The so-called D-kerbstone has an integrated drainage system.



*Installation steps may vary depending on the system, please refer to our detailed installation instructions.

SIMPLY | FLEXIBLE

When rail and road meet, the requirements are manifold, and our **STRAIL®** level crossing systems are correspondingly diverse. Each one has been specially designed and developed for its area of application.

What the modular rubber panels have in common, however,

are tongue and groove on the one hand and the patented lock tight system for all panel types on the other. This is why **STRAIL®** systems can flexibly be combined very well with each other.

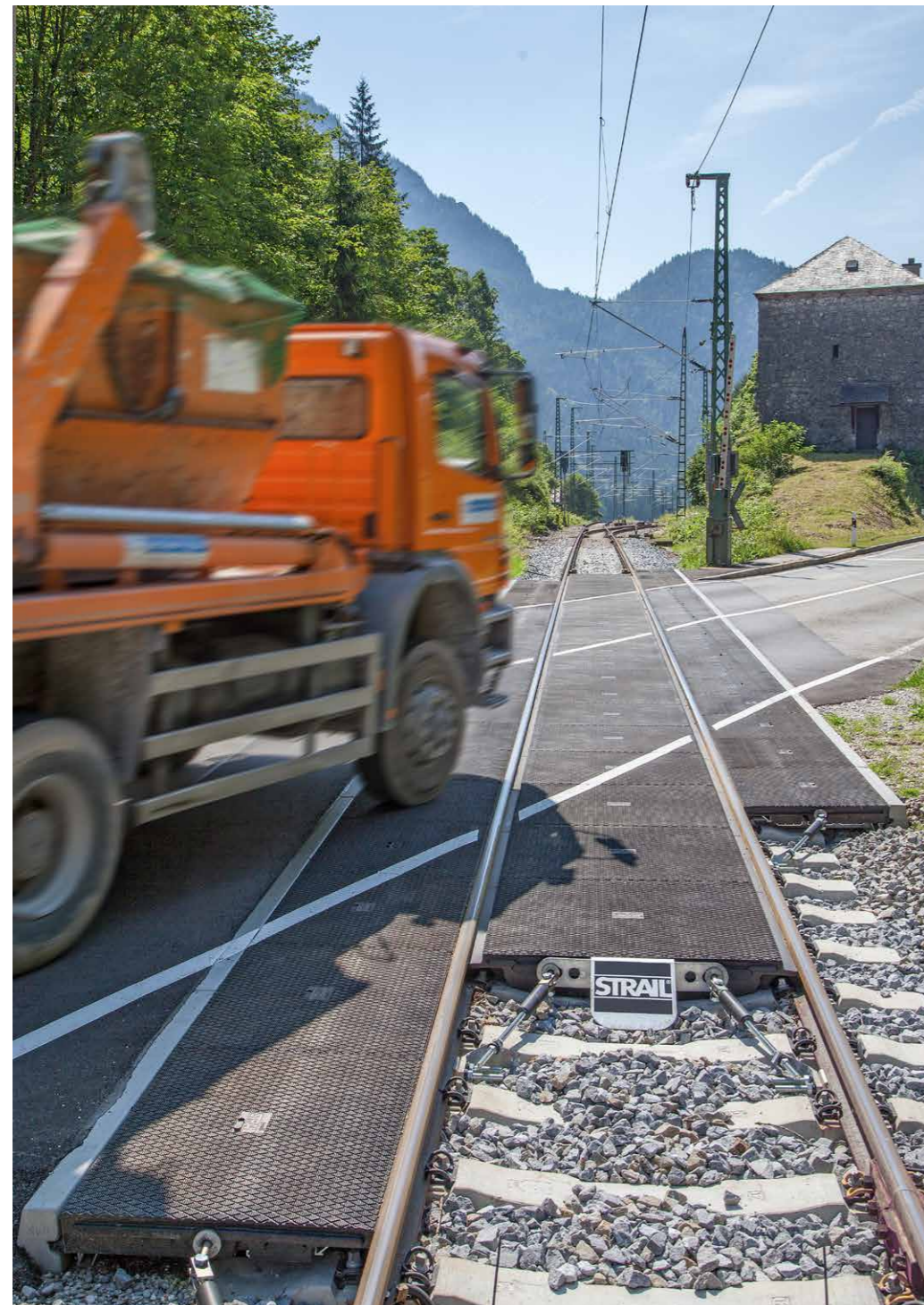
Each **STRAIL®** level crossing panel is equipped with a tongue and groove.

This tongue and groove connection prevents the „tilting“ that is a problem with single panel systems, especially when the panel is driven over at an angle.

Our easy-to-install lock tight system connects the **STRAIL®** panels lengthwise to form a continuous strand.

This ensures positional stability and prevents the formation of gaps, even when driven over at an angle.

STRAIL® sticks together!



SIMPLY | RELIABLE

Several million axles roll over level crossings every year, both from individual traffic and trains > a double load that **STRAIL®** systems can cope with.

The individual solid rubber panels, some with fabric reinforcement, are available for all common types of superstructures.

A rhombus design optimised for wet conditions with pyramid tips and vulcanised corundum promises excellent slip resistance for vehicles and pedestrians alike and minimises wear and tear.

This gives our virtually maintenance-free level crossings a long service life span you can count on.

When other materials give way or even break under high loads, rubber is as good as ever.

With **STRAIL®** there is no „sudden death“ - for example, even after a train derailment, our **STRAIL®** level crossing could still be used as an emergency crossing in all directions.

STRAIL® > you can rely on!



STRAIL

Inner- & outer panel system

The premium system.

STRAIL® is a heavy-duty and very durable level crossing system suitable for main artery roads.

The modular system consists of individual solid rubber panels that are secured to a package using our lock tight system.

- suitable for all common rail and sleeper types
- pyramid surface with vulcanised corundum ensures slip resistance
- long service life

- quick and easy installation and removal
- fibre-reinforced to withstand ever increasing traffic loads

Facts:

Load capacity **++++**
 L: 600 & 1,200 mm inner panels
 W: 591 & 713 mm outer panels
 for 600 mm sleeper spacing
 with filler block



innoSTRAIL

Inner- & outer panel system

The economical system.

innoSTRAIL is recommended for crossings with medium to high loads (> depending on the track superstructure). The system, which is independent of the sleeper spacing, does not require any filler blocks and is therefore a particularly economical system.

- suitable for all common rail and sleeper types
- pyramid surface with vulcanised corundum ensures slip resistance
- quick and easy installation and removal

- long service life
- **optional application** for rerailing points of road-rail vehicles for maintenance work and rescue operations

Facts:

Load capacity **+++**
 L: 900 & 1,200 mm inner panels
 W: 591 & 713 mm outer panels
 independent of sleeper spacing
 no filler block



pontiSTRAIL

Outer panel system

The adaptive system.

pontiSTRAIL is the outer panel system that adapts flexibly to the individual track position and is therefore particularly suitable for level crossings that are subject to frequent maintenance cycles.

pontiSTRAIL consists of two materials > rubber and aluminium and thus combines the advantages of both.

- tolerates horizontal and vertical track position changes
- stable support
- outer panel can be adapted to the road gradient
- pyramid surface with vulcanised corundum ensures slip resistance
- suitable for all common rail and sleeper types

- quick and easy installation and removal
- long service life
- fibre-reinforced to withstand ever increasing traffic loads
- it is possible to replace **STRAIL** outer panels with **pontiSTRAIL 713**

Facts:

Load capacity **++++**
 L: 1,200 mm outer panels
 W: 713 & 910 mm
 aluminium bearer
 for 600 mm sleeper spacing
 with aluminium bearer



pedeSTRAIL

Inner- & outer panel system

The lightweight system.

The cost-effective system, specially developed for pedestrian and bicycle paths, ensures safe and comfortable crossing of the tracks, especially at stops, service crossings and stations.

It can also be used for escape routes in railway tunnels and metros.

- suitable for all common rail and sleeper types
- special, non-slip **pedeSTRAIL** surface
- quick and easy installation and removal
- **optional:** with flame-retardant top layer

- long service life
- lightweight panels > quick, easy installation which can be done manually

Facts:

Load capacity **+**
 L: 900 mm inner panels
 W: 591 & 713 mm outer panels
 independent of sleeper spacing
 no filler block



veloSTRAIL

Inner panel system

The safe system.

veloSTRAIL permanently eliminates the flange groove with interchangeable elements made of virgin rubber. This allows a completely barrier-free crossing of the level crossing.

The interchangeable parts can be easily exchanged and recycled at the end of their service lives (depending on train frequency) without removing the inner panel.

- for train speeds up to **max. 120 km/h**
- pyramid surface with vulcanised corundum ensures slip resistance
- **veloSTRAIL** covers the flange groove and therefore does the job of keeping it free from snow and ice in winter
- long service life

- fibre-reinforced to withstand ever increasing traffic loads
- popular areas of application: **inner city**, e.g. in front of schools, day-care centres, shopping centres, **in front of hazardous crossing angles**, e.g. for cyclists and wheelchair users, aby carriages, inline-skaters, rolley bags, etc.

Facts:

Load capacity **++++**
 L: 600 & 1,200 mm inner panels for 600 mm sleeper spacing with filler block
 replaceable element yielding to the wheel flange
 can be combined with all outer panels of the **STRAIL** product family



tapSTRAIL

Inner- & outer panel system

The versatile system.

tapSTRAIL was developed for less frequented level crossings on agricultural roads and for rerailing platforms.

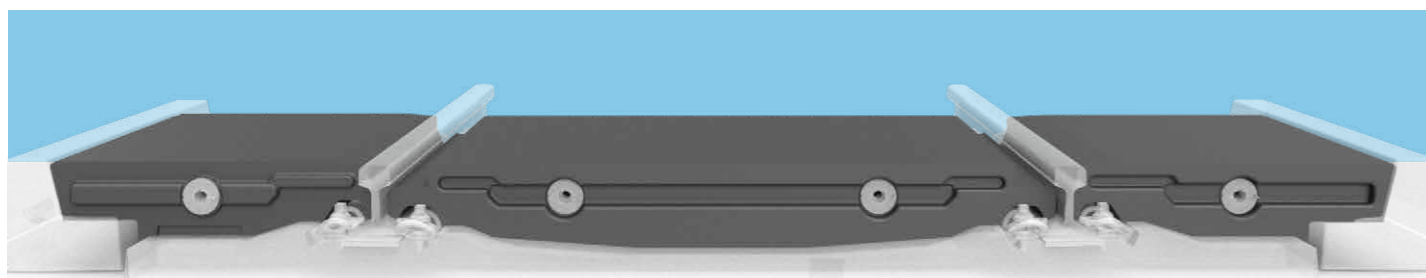
The lightweight panels allow quick and easy installation and removal, which is particularly important for track maintenance work.

- suitable for all common rail and sleeper types
- special, non-slip **innoSTRAIL** surface
- quick and easy installation and removal

- long service life
- lightweight panels > quick, easy installation which can be done manually
- narrow flange groove to make the crossing even safer

Facts:

Load capacity **++**
 L: 900 mm inner panels
 W: 591 & 713 mm outer panels independent of sleeper spacing
 no filler block



STRAILgrid

STRAILgrid serves as a visual deterrent and makes it difficult or impossible to trespass on tracks by means of its irregularly arranged pyramid peaks at different heights.

- universal panel
- can be used between and next to the rails
- quick and easy manual installation and removal

- integrated drainage
- permanently screwed with intermediate elements

Facts:

Load capacity: **not traversable**
 900 mm universal panel



STRAILedge

The platform edge made of profiled rubber allows almost gap-free boarding and alighting and is completely barrier-free at doors of the same height. Due to its properties, the rubber prevents extending sliding steps from damage.

- customizable to fit your requirements
- gap-free boarding and alighting
- complete barrier-free access possible

- non-slip and safe to step on
- quick and easy installation and removal
- special fastening ensures stability and strength

Facts:

Load capacity: **pedestrians**
 Dimensions: **adjustable**



profileSTRAIL

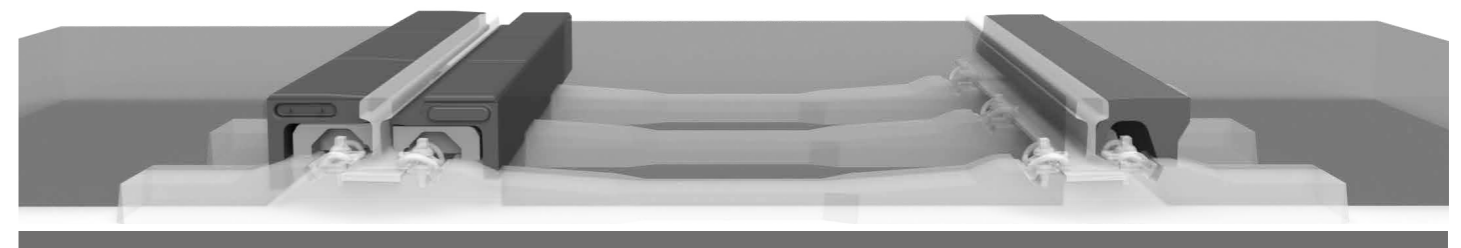
profileSTRAIL accompanies the rail and is used in and in front of maintenance halls as well as on factory roads. It allows delivery vehicles and forklift trucks to cross the track comfortably and safely.

- eliminates tripping hazards and open gaps in the crossing area
- minimizes the flange groove
- quick and easy installation and removal

- allows quick access to the rail fastening at any time
- can be used as formwork for concrete grouting during initial installation

Facts:

Load capacity: **delivery traffic and in-plant transports**
 Dimensions: **adjustable**



LEVEL CROSSING SYSTEMS

TYPICAL STRAIL

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