

ELASTIC RAIL FIXING

Sika® Icosit® KC-350

CURING-BY-DESIGN

ADAPTED APPLICATION AND CURING TIME FOR FAST RETURN TO SERVICE

BUILDING TRUST



GET RAIL TRACK BACK IN SERVICE FAST – TIME IS MONEY

With elastic rail fixing products, based on two-component polyurethane: Sika® Icosit® KC-350/45 and Sika® Icosit® KC-350/65

SIKA CURING-BY-DESIGN TECHNOLOGY

THESE NEW GENERATION Sika® Icosit® PRODUCTS ENSURE A LONGER OPEN TIME FOR APPLICATION AND AT THE SAME TIME ARE READY TO BE DYNAMICALLY LOADED SIX TIMES FASTER THAN STANDARD PRODUCTS AFTER APPLICATION.

SAFER AND EASIER APPLICATION AND AT THE SAME TIME SHORTER TRACK CLOSURE THAN STANDARD PU GROUTS

HIGH WORK EFFECTIVENESS WITH HIGH QUALITY AND LONG DURABILITY

FAST NIGHT REPAIR OF THE TRACK → QUICK RETURN TO SERVICE

is a growing demand for work on railway tracks. To meet these requirements, the previously used two component PU products require specific methods (additional equipment and tools) of work related to the track renovation, because they need a relatively longer hardening time than the length of night breaks provided for maintenance works and the time needed for the application and hardening of the material.

This can only be solved by smart chemical formulations powered by Curing-by-Design technology. Sika® Icosit® KC-350/45 and Sika® Icosit® KC-350/65 are both ELASTIC rail fixing grouts which have been designed with this technology.



CUSTOMER BENEFITS:



LONG OPEN TIME – MORE TIME,
EASIER AND SAFER TO APPLY
THE PRODUCT

SHORT CURING TIME – SAVES
CLOSING TRACK TIME DUE TO
HIGH EARLY TRAFFICABILITY

SUCCESSFUL HISTORY OF
IN-FIELD SERVICE FOR OVER
50 YEARS

SAVES MONEY DUE TO LONGER
USAGE TIME OF TRACKWAYS
AND SAFER APPLICATION

REDUCED MAINTENANCE
COST DUE TO THE LONGER
DURABILITY

THE INNOVATIVE TECHNOLOGY CURING-BY-DESIGN

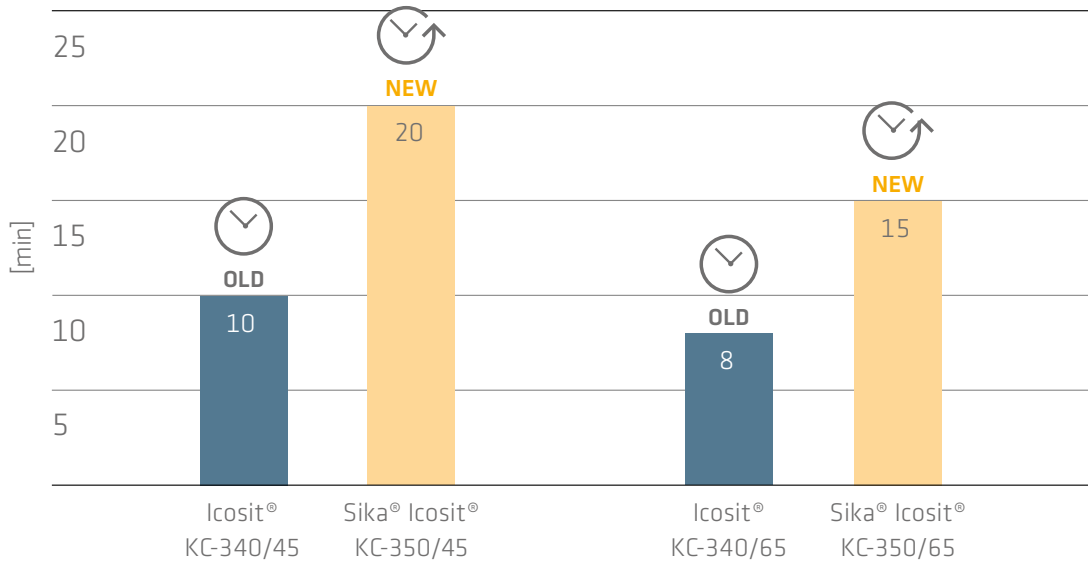
Enabling the adaption of application time and curing time to achieve the highest project process efficiency

PROLONG THE OPEN TIME FOR APPLICATION AND SPEED UP CURE TIME ONCE APPLIED

- the adapted installation process makes the working time more effective: The longer open time ensures greater safety of the application, while at the same time unproductive product-curing waiting time can be minimized or even avoided.

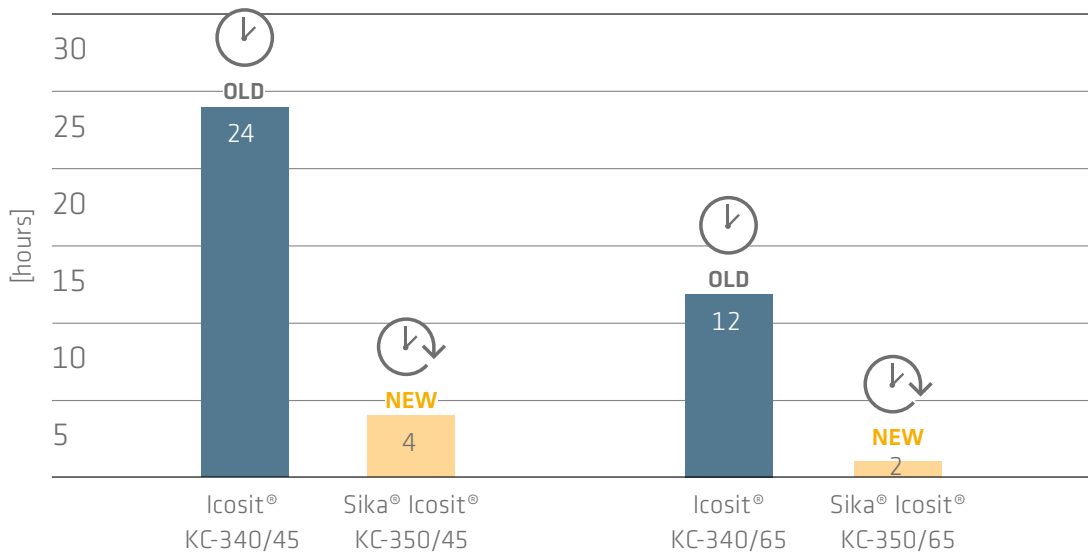
OPEN TIME

Optimal workability



CURING TIME

Faster return to service



APPLICATIONS OF THE CURING-BY-DESIGN TECHNOLOGY

TIME-CRITICAL



Trackways closing time should be as short as possible.

ONE-NIGHT REFURBISHMENT



Trackways which need to be refurbished during the night brake shift. This could be speed up by machine application.

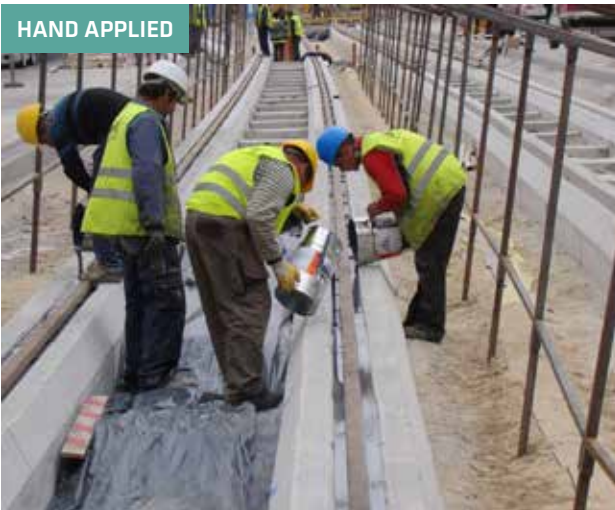
FAST PLACEMENT



Any project which needs to be finished quickly so as to not interrupt any other parts of the traffic network.

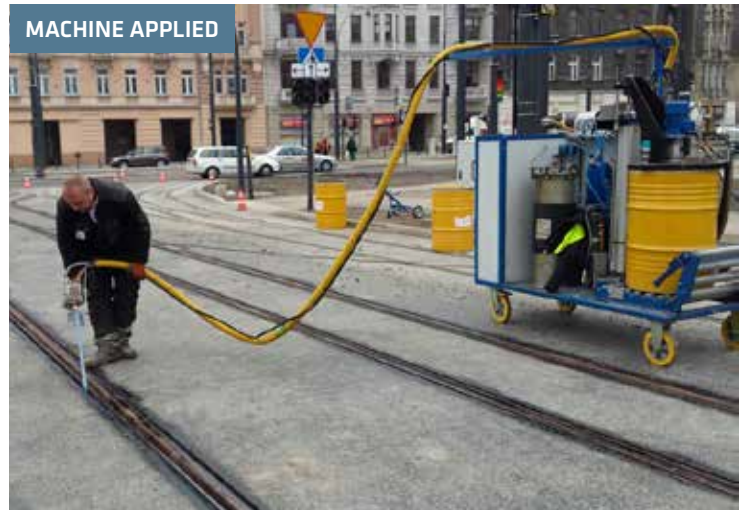
SECURITY AND FLEXIBILITY IN APPLICATION, PLUS EASE OF HANDLING

HAND APPLIED



Sika® Icosit® KC-350 can be applied manually or by machine. In many cases these two installation methods are combined. The combined installation capacity is approx. 500 kg/h.

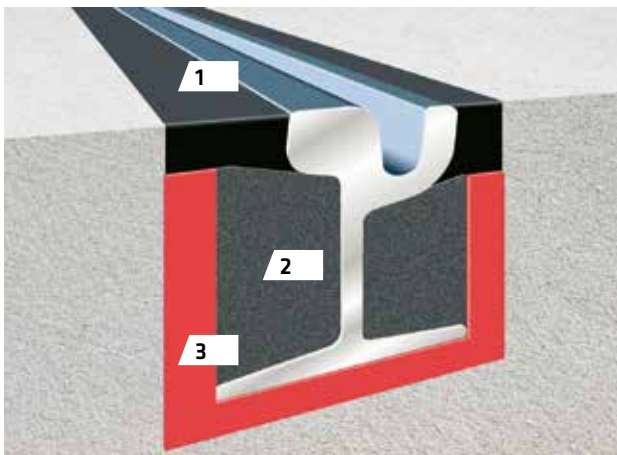
MACHINE APPLIED



The machine application has many advantages such as: speed, logistics, less effort for employees, protection of the environment. With the help of the machine application, higher potting rates are possible. Carrying out larger projects in only one night is not a problem. With the machine application, barrels of ~180 kg are used instead of 10 kg containers, which enables leaner logistics.

Sika® Icosit® KC-350 FOR CONTINUOUS UNDERSEALING OR EMBEDDED RAIL SYSTEMS

POWERED BY THE CURING-BY-DESIGN TECHNOLOGY, Sika® Icosit® KC-350/45 and Sika® Icosit® KC-350/65 are both two-component polyurethane grout for fixation in ballastless trackways.

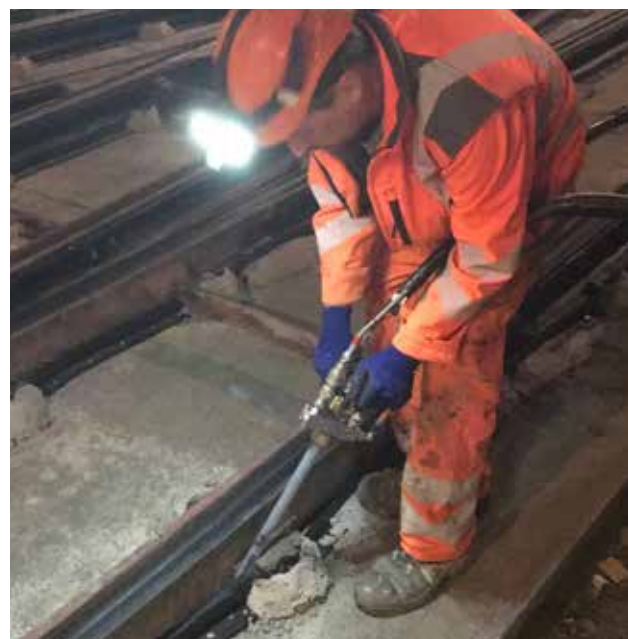


Continuous grooved rail storage with cavity filling.

1. Joint sealing by Sikaflex® 406KC-with primers
2. Filler block elements adhered by Sika® Icosit® KC-330 FK or SikaBond®-139 Filler Block
3. Two-component polyurethane material Sika® Icosit® KC-350 products

Sika® Icosit® KC-350 products can be applied by hand or machine. They are intended as vibration damping, load-bearing, flexible materials for fixing grooved or T-rails in ballastless slab tracks on steel or concrete substrates in tram, metro and railway tracks, applied on bridges, in tunnels or in the road. Embedded Rail System or Continuous Undersealing executed with using Sika® Icosit® KC-350 products ensures efficient life cycle costs (LCC) of the track and superstructures which also includes the following features:

- The permanent alignment improves track stability,
- The parameters of products ensure proper deflection suitable for a specific rolling stock which results in less wear on rolling stock,
- The parameters of products ensure a high reduction of vibrations and structure-borne sound which increases comfort and smooth train operation
- Very good electrical insulation improves the control of stray currents (complies with the latest regulations according to en 50122-2)
- Long durability extends service intervals and ensures maintenance-free “close to zero” tracks (due to the dynamic fatigue resistance)
- Reduction of construction height (important for tunnels) and weight (important for bridges)



Sika® Icosit® KC-350 products are largely independent of weather conditions as they can also tolerate matt damp substrate.





ADVANTAGES



CURING-BY-DESIGN FOR FAST BACK-TO-SERVICE TIMES

- Product open time is prolonged to allow an easier application and enough time for a safe end effective installation
- Product cure time speeds up to by six times to shorten the track closure



ENVIRONMENT FRIENDLY FOR BETTER HUMAN LIFE QUALITY

Noise and vibration reduction



HIGH PERFORMANCE FEATURES AS TECHNICAL PROBLEM SOLVER

- Good electrical insulation against stray currents
- Watertight rail fixation
- Insensitive to moisture during application
- Absorbs dynamic stresses so prolongs the life of the trackways and superstructures
- More uniform load distribution into substrate
- Flexible, elastic (Hardness shore A: 50 - 70 depending on the product)
- Dampening and vibration mitigation
- Excellent adhesion on various substrates
- Dimensions tolerance-compensating (layer thickness can vary between 15 - 60 mm)
- Suitable as a powerful, shear-resistant adhesive



HIGH QUALITY FOR LONGEVITY

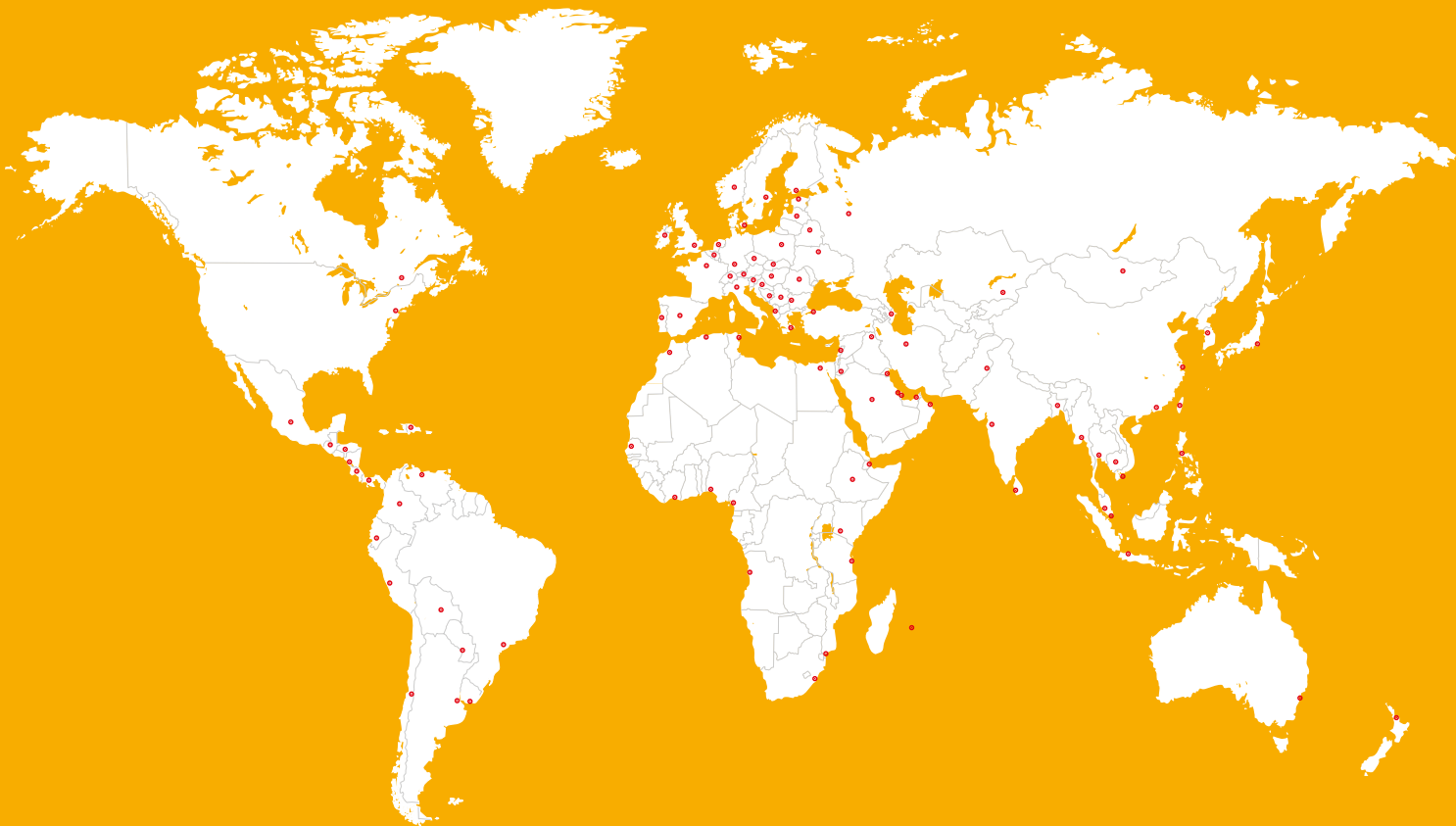
Long durability, less maintenance



EASY HANDLING FOR TIME SAVING

- Easy and safe application
- Manual application or machine application are both possible
- Ready-to-use packaging for manual application or machine application
- The machine application has many advantages such as: speed, logistics, less effort for employees, protection of the environment.

GLOBAL BUT LOCAL PARTNERSHIP



FOR MORE INFORMATION ON SIKA ELASTIC RAIL FIXING SOLUTIONS:



WE ARE SIKA

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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