



## UNDER SLEEPER PADS

### Turnout sleepers made of concrete with under sleeper pads

#### Description

Under sleeper padding for concrete bearers in ballasted track increases the track stability, protects the ballast and reduces structure-borne noise and airborne noise by reducing rail damage to the running surface of the rails.



#### System advantages

- » Reduction of dynamic forces in the ballast bed = improvement of the track stability
- » Enlargement of the contact surface between the sleeper and ballast = ballast protection
- » Distribution of loads over a larger number of sleepers = extension of the service life between tamping intervals
- » Reduction of ripple and slip wave formation
- » Retrofitting of tracks with vibration protection

# UNDER SLEEPER PADS

## Description

The permanent bond between the concrete sleeper and the under sleeper pads is already produced during the production in the concrete sleepers plant.

Depending on the requirements such as axle loads and speeds, materials of different stiffnesses are used as under sleeper pads. For example, within a turnout, sleeper pads of different stiffness values are used in order to achieve the most uniform deflection as possible throughout the turnout. Special FEM calculation programmes are used for the optimized design.

## Material

- » Under sleeper pads: Material and stiffness according to requirements (e.g. foamed polyurethane)

## Technical description

- » Meets EN16730
- » Mounted in the sleeper plant
- » Common bedding modulus: 0.1 to 0.3 N/mm<sup>3</sup>

## Cooperation with Getzner Werkstoffe

voestalpine and Getzner Werkstoffe, the world's leading specialist for vibration protection, founded a worldwide cooperation for elastic solutions in the railway sector. The cooperation agreement includes the development, manufacture, and marketing of vibration isolating products and systems to improve the quality of railway tracks.

The integration of elastic solutions in the railway superstructure protects against vibration and reduces track stress. With their cooperation, Getzner and voestalpine VAE offer railway operators worldwide additional opportunities to increase the performance of sensitive railway network components and reduce life cycle costs.

[www.getzner.com](http://www.getzner.com)