

S312

TWINBLOCK BOOTED SLEEPER



S312 is a reinforced Twinblock booted sleeper which is designed to address the vibration mitigation requirements of modern slab tracks. This innovative sleeper has been developed to combine strength, constructability, maintainability, and flexibility and as such, has been adopted by the most prominent track construction contractors worldwide as their preferred system.

Key Benefits



STRENGTH

- › Proven sleeper design
- › Waterproof
- › Long design life
- › High lateral loads resistance
- › Approved for 320 km/h



CONSTRUCTABILITY

- › Simple construction logistics
- › Easy handling
- › Easy track levelling
- › Guaranteed gauge during construction, no gauge widening in service



FLEXIBILITY

- › Compatible with all gauges, fastening systems
- › Adjustable levels of N&V mitigation
- › Bespoke stiffness possible
- › Easy replacement and maintenance

DESIGN AND PERFORMANCE

From bottom to top the S312 is made up of the following components:

- › **Rigid Boot** designed to resist shock and loads from both track laying and rolling stock. The outer shell has vertical fins to ensure the boot is firmly anchored in the surrounding concrete.
- › **Resilient Pad**, comes in a variety of stiffness, subject to the required level of performance.
- › **Lateral Pads** are designed with grooves to reduce friction and provide good lateral track elasticity.
- › **Concrete Sleeper** is a Twinblock reinforced concrete sleeper.
- › **Rubber Gasket Sealant** protects the system from debris and water infiltration.
- › **Tie Bar** guarantees gauge and enables easy handling and construction.
- › **Vibration Mitigation** up to -15 dBv at 63Hz.

S312 – N1	Standard stiffness	~ 28kN/mm	~8 to 12 dB Insertion Loss
S312 – N2	Medium stiffness	~ 10kN/mm	~ 12 to 15 dB Insertion Loss

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Applications

- › Light Rail Transit (axle load up to 12 tonnes)
- › Metro (axle load up to 18 tonnes)
- › Standard track (axle load up to 25 tonnes)
- › High Speed and very High Speed (reference up to 320 km/h)

References and Accreditation

- › Over 400,000 booted sleepers installed
- › Approved by Network Rail in the UK with Certificate of Acceptance PA05/06822
- › Approved by SNCF in France with Certificate of Acceptance PA05/06822 N° 0664/2022
- › Installed on SNCF network: LGV EST (High speed – SNCF), EOLE...
- › Installed on in-service Elisabeth Line (CrossRail), London, UK
- › Installed on RATP network (RER line A and B)

Associated Products

- › M312 prestressed concrete monoblock booted sleeper available
- › M312 booted bearer for S&C



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