

VIPA SP

Rail Fastenings Systems

PANDROL VIPA SP is a resilient track support system that attenuates wheel and rail contact induced vibrations transferred from the rail to the supporting structure.

Key classifications

Ballasted
Non-Ballasted
Non-threaded
Switch-on / switch-off

Typical interface type

Timber sleepers	✓
Concrete sleepers	✓
Steel bridge deck	✓
Concrete slab	✓

Specific requirements?

Pandrol can provide products with performance characteristics to suit customer specifications. Please contact us to discuss your requirements.

Application data (Standard products – special variants may differ)

Rail inclination	Provided in the baseplate or concrete as required			
Typical applications	LRT/Metro, General main line, high speed non ballasted tracks, bridges			
Clip type	Pandrol Fastclip FC1501, FC1504			
EN 13481-2 fastening category	Cat A	Cat B	Cat C	Cat D
Maximum axle load*	130 kN	180 kN	260 kN	260 kN
Minimum curve radius*	40 m	80 m	150 m	400 m

* For special applications consult Pandrol.

Typical performance data* As identified by Track Category in EN 13481-1

	Cat A	Cat B	Cat C	Cat D	Remarks
Assembly static stiffness	10–15 kN/mm	11–16 kN/mm	12.5–17.5 kN/mm	12.5–17.5 kN/mm	Dependent upon pad selection
Assembly dynamic stiffness	12.5–17.5 kN/mm	13–18 kN/mm	17.5–22.5 kN/mm	25–30 kN/mm	
Electrical insulation	>10 kΩ	>10 kΩ	>10 kΩ	>10 kΩ	
Clamping force	>16 kN	>16 kN	>16 kN	>16 kN	
Creep resistance	>7 kN	>7 kN	>7 kN	>9 kN	
Lateral adjustment	+/- 5 mm	+/- 5 mm	+/- 5 mm	+/- 5 mm	
Vertical adjustment	+ 20 mm	+ 20 mm	+ 20 mm	+ 20 mm	

→ COMPLIANCE WITH STANDARDS

Pandrol VIPA SP has been tested against the requirements of EN 13481-5:2012 'Fastening systems for slab tracks'. The system will meet the requirements of the European High Speed TSI (Technical Standards for Interoperability).

→ NOTES

Pandrol is a provider of innovative custom rail fastenings. Data in this document indicates typical performance. Actual performance is dependent on a range of external factors. Please contact us to discuss how Pandrol can tailor products to suit local operating conditions and specific requirements. Technical information in this document was correct at time of printing. Improvements may since have been introduced as a result of our continuous research and development programmes.

Learn more



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