

# Nabla Tram

## Rail fastening system

- For use on non-ballasted tracks (slab tracks)
- Suitable for top-down construction and bottom-up automatic construction

### Application data (Standard products – special variants may differ)

Rail inclination	Provided in the concrete as required
Pad type	Rubber or polyurethane material, depending on stiffness requirements
Typical applications	Tram/LRT, for plain lines, depot/washing plan sections
Typical rail sections	50E6, 54E1, 41GP13, 41GPU, 54G2 (options available for 60E1 and R155N)
Clip type	Nabla C1 according to NFF 50-015
Anchor type	High performing GS plastic dowel suitable for insertion into fresh concrete type B30
EN13481-5 track category	Cat A
Maximum axle load*	130 kN
Minimum curve radius*	40 m

\* For special applications consult Pandrol.

### Typical performance data\*

	Cat A	Test method	Test method
Assembly static stiffness	35 mN/mm - 150 mN/mm	EN13146-9 Cat A	Dependent on choice of pad
Electrical insulation	>22 kΩ	EN13146-5	
Lateral adjustment	+/-7.5 mm per rail with an increment of 1.25 mm		
Vertical adjustment	-2/+3 mm (optional +/- 4 mm)		

### → COMPLIANCE WITH STANDARDS

The Nabla Tram fastening system complies with the EN 13481-5 standard.

### → NOTE

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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