

Nabla Evolution

Rail fastening system

- Tightening by contact, for the consistency of the application force on the rail foot
- Typical lateral adjustment of +/- 7.5 mm
- Improved performance in low radius curves giving control of rail movement and track gauge

Application data (Standard products – special variants may differ)

Rail inclination	Provided in the sleeper as required			
Pad type	Rubber or polyurethane material, depending on stiffness requirements			
Typical applications	Tram, LRT/Metro, Main Line, High Speed			
Clip type	Nabla			
EN13481-5 track 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

	Value	Test method	Remarks
Assembly static stiffness	70 kN/mm	EN13146-9	Dependent upon pad selection
Assembly dynamic stiffness	80 kN/mm		
Electrical insulation	>10 kΩ	EN13146-5:2012	
Clamping force	>16 kN		
Creep resistance	>7 kN		
Lateral adjustment	+/-7.5 mm to +/- 10 mm		
Vertical adjustment	+/- 1 mm to 2/+3 mm		

→ COMPLIANCE WITH STANDARDS

The Nabla Evolution System complies with the European CEN Standard 13481-2.

→ 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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