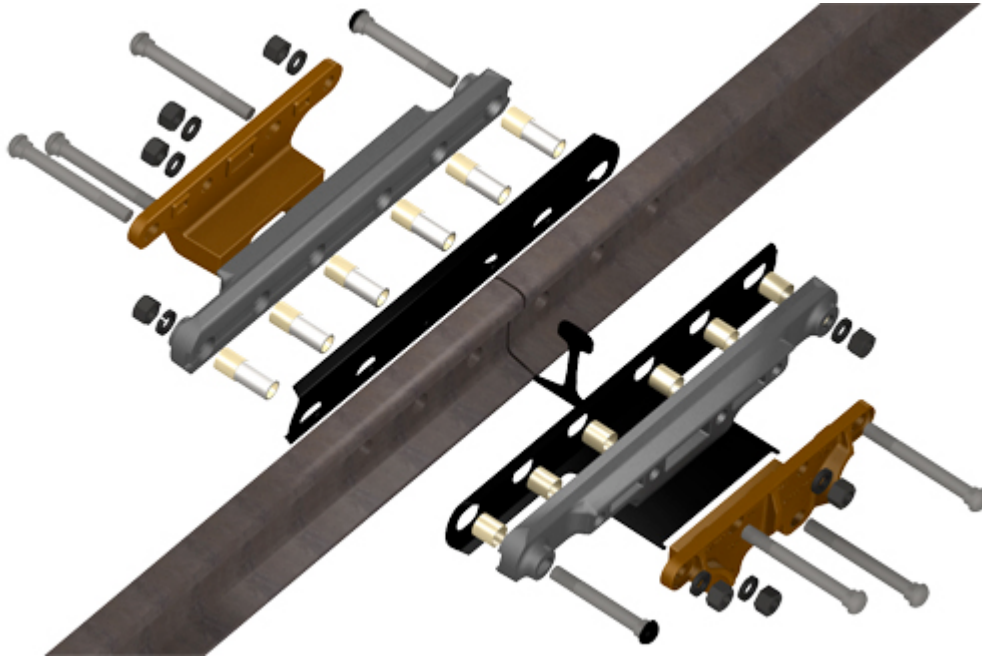


Insulated Railroad Joint



Material Supplier: E.I. du Pont de Nemours & Co.

Designer: NorFast Inc.

OEM: NorFast Inc.

Supporting Documentation:

[Reliable signal protection](#)

[NorFast NIJ-6 Hercules](#)

[NIJ-6 Insulated Joints](#)

Product Description

NorFast Insulated Joints join rail sections in tracks while maintaining signal (current) isolation. The NIJ-625 and NIJ-720 insulated joints come with two-piece saddles which allow quick and easy installation of the joints. These products are intended for railway companies.

Why is the product innovative?

The NIJ-720 and NIJ-625 provide signal reliability, last longer than conventional IJs and offer the following features:



international plastics design competition



Strength:

- Section modulus of NIJ-720 is same as that of the rail
- Thimble and insulator stress reduced up to 75%
- Saddle provides redundancy and overall increases joint strength

Savings:

- Saves two temporary joints in new construction
- Eliminates two welds in all constructions
- Saves shipping and handling of long rail plugs

Simplicity:

- User-replaceable modular components that install fast
- Smaller pallet of parts vs. long rail plugs

Productivity:

- Floating joint system for fast in-field installation
- Fits any type of track
- Saddle can be installed without displacing adjoining ties and crib
- At rail change out, replace only the insulators for brand new joint

Reliability:

- Patented thimble design for superior signal isolation
- Resistivity $>10^{12}$ W at 500V
- Insulator is UV stabilized
- Reduces train delays associated with IJ failures
- Reduces IJ-related FRA defects
- Saddle ensures proper tie spacing
- Saddle provides extra anchorage against rail longitudinal movement