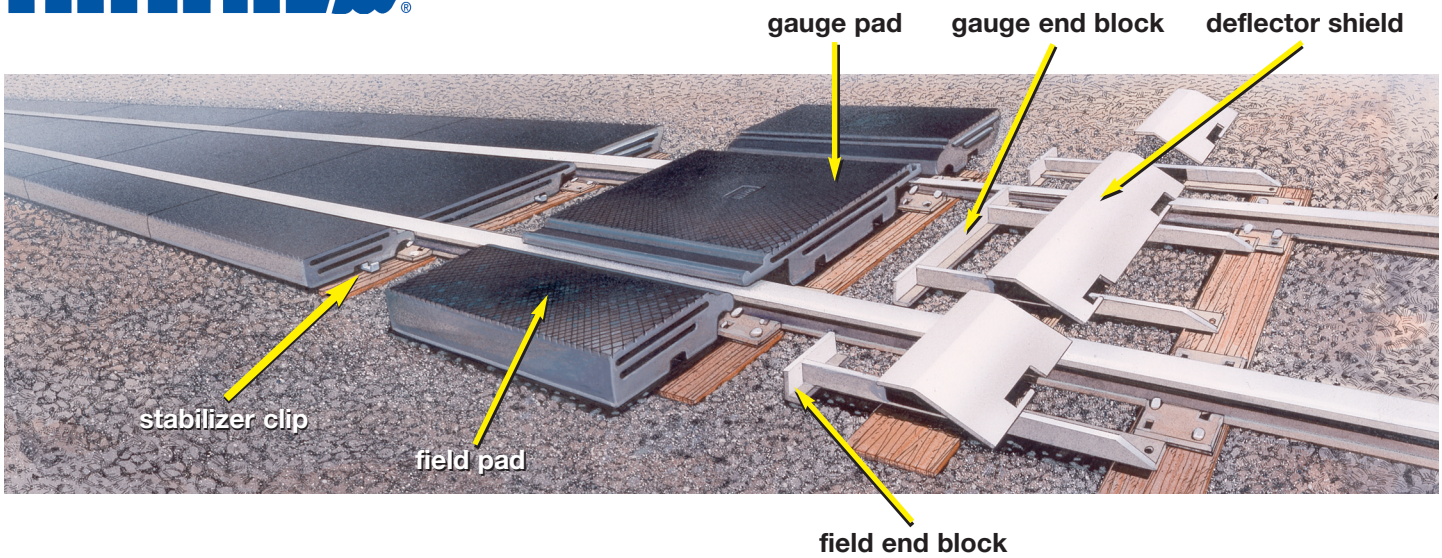
# Technical Data




## System For Use on Wood Ties

Within each three-foot section of the Hi-Rail® system, one gauge pad is seated tightly between the rails. Sections are then completed with two field pads—one on each side of the rail. Small stabilizer clips are placed every six feet (or every 2 pads) to eliminate the possibility of lateral pad movement. The bottom of each crossing pad is notched, so when pads are pressed together, stabilizer clips are recessed into the notches.

Steel end blocks secure gauge and field sections on both ends of the crossing. Optional deflector shields are also available to help protect your crossing from items that may be dragging beneath passing trains. Approaches are completed with asphalt or concrete to the full depth of all field pads.

Hi-Rail rubber grade crossing systems are covered by a 5-year limited warranty. Contact your HiRAIL sales representative for complete details.

## Resistance

The surface coating is ozone and crack resistant. The material is resistant to the following chemicals:

Ammonia, ASTM oil No. 1, brake fluids, n-butanol diethylene glycol, ethanol, ethylene glycol, fatty acids, glycerol, hydrochloric acid, methanol, n-propanol, sodium base 50%, sulfuric acid 25%; distilled, sea and waste water.

Resistance is defined as a change in the main physical properties after more than 20 days at 120°F = 50°C, see physical data. For waters this is valid for more than 4 years at the a.m. temperature.

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| **change in weight** | **± 30%** |
| **tensile strength** | **- 50%** |
| **hardness** | **± 15 ShA** |

## Physical Data

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| **Elastomer Classification** | ASTM D 2000 |
| **Line Callout** | ASTM D 2000, M2 AA 710 C12 F17 |
| **Hardness** | ASTM D 2240, 65 ± 5 Shore A |
| **Tensile Strength** | ASTM D 412, > 12 MPa |
| **Ultimate Elongation** | ASTM D 412, > 350% |
| **Density** | ASTM D 297, 1.18 ± 0.02 g/cm$^3$ |
| **Abrasion Resistance** | DIN 53516, < 150 mm$^3$ |
| **Skid Resistance** | ASTM E 303, > 65 BPN |
| **Resistance To Ozone** | ASTM D 1171, C12 |
| **Accelerated Aging** | ASTM D 573, A13 |
| **Compression Set (22h, 70°C)** | ASTM D 395, < 20% |
| **Volume Resistivity** | ASTM D 257, 1.3 x 10$^7$ ohms/cm |
| **Low Temperature Brittleness** | ASTM D 2137, -105°F = -40°C F17 |

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