


# TECHNICAL PROPERTIES

| <b>TRITON<br/>TIES</b>  | <b>G1</b>       | <b>G2</b>   | <b>G3</b>   | <b>2023 AREMA<br/>Recommendation</b>      |
|--|-----------------|-------------|-------------|---|
| <b>Color</b>   | Matte Black     | Matte Black | Matte Black | None                                      |
| <b>Weight, lbs</b>   | 200             | 215         | 228         | Typically: 185-320                        |
| <b>Modulus of Elasticity, psi</b>  | 200,000         | 275,000     | 330,000     | Typically: 150,000-200,000                |
| <b>Modulus of Rupture, psi</b>   | 5,000           | 7,000       | 8,500       | > 2,500                                   |
| <b>Coefficient of Thermal Expansion,<br/>in/in/°F</b>  | 7.495 E-05      | 2.771 E-06  | 1.662 E-05  | < 7.5 E-05                                |
| <b>Spike Pullout, lbf</b>  | 2,700           |             |             | > 1,900                                   |
| <b>Spike Lateral Restraint, lbf</b>  | 2,400           |             |             | None                                      |
| <b>Electrical Impedance, ohms</b>  | 333,333         |             |             | > 20,000                                  |
| <b>Rail Seat Compression, in,<br/>elastic, plastic</b>   | 0.224,<br>0.046 |             |             | < 0.25 , < 0.125                          |
| <b>Rail Seat Positive Bending, 26,250lbf</b>   | PASSED          |             |             | Engineer's discretion for<br>applied load |
| <b>Flexural Fatigue, 2M cycles</b>   | PASSED          |             |             | None                                      |

Triton G1 tested at MxV Rail, Class 1 Labs, and PFS TECO. Triton G2, G3 tested at Class 1 labs and PFS TECO



# ENGINEERED FOR THE LONG HAUL.

The Triton Tie is a fiber-reinforced polymer composite tie. The design provides superior performance and cost savings with its proprietary formula and improved extrusion process.

- » Best in class cost performance
- » Manufactured with world leading extrusion technology
- » Custom manufacturing process provides better utilization of reinforcement
- » Vertically integrated with its own source of plastic
- » Can be interspersed with existing wood crossties for optimal capital management
- » Installation requires no specialized equipment
- » Can customize performance for customer application: 3500-10000psi MOR, 200-500ksi MOE available



NOMINAL DIMENSIONS

