

TFSM TREAD STICK FRICTION MODIFIER

Whitmore's TFSM is a top-of-rail friction modifier (TOR FM) that is specifically designed to provide an optimum coefficient of friction at the wheel-rail interface. Whitmore TFSM substantially reduces wheel tread wear, TOR wear, and noise. Wear to the wheel tread and top-of-rail can lead to the onset of corrugations and result in increased rail grinding.

During normal rolling, TFSM utilizes mild lubricating properties, however, when wheel creep occurs, the sliding friction immediately converts to "positive friction." During this conversion, friction levels reach approximately 0.42 between the wheel tread and top-of-rail. This consequently controls the creep condition and returns the wheels to a healthy rolling motion. The result is a substantial reduction in creep forces, which reduces the onset of corrugations and high-frequency squealing.

TFSM can be utilized alone or on a dual bracket with Whitmore's FSL. The products are typically applied using spring-loaded applicators that prevent cross-contamination. TFSM & FSL perform very dissimilar functions, therefore, each has a unique size/shape with corresponding applicators to eliminate improper application.

BENEFITS:

- **NOISE LEVELS** – stops or substantially reduces high pitch TOR squeal
- **WEAR** – reduces or eliminates creep, hunting (also known as yaw) and corrugations
- **CORRUGATION** – delays the onset of corrugations, resulting in decreased rail grinding
- **BRAKING** – does not affect braking or tractive effort
- **QUIET** – smoother, quieter ride for transit customers
- **CLEAN** – provides clean and dry lubrication with little to no dust. Does not glaze at contact face with trunnion roller which minimizes the amount of sanding required.
- **INTERLOCK** – includes a round interlocking feature to prevent Nib fallout
- **POSITIVE FRICTION** – increases friction on contaminated areas of track
- **LOW CONSUMPTION** – increases friction on contaminated areas of track
- **CONDUCTIVITY** – does not interfere with electrical conductivity at the wheel-rail interface.

APPLICATIONS:

TFSM optimizes friction at the wheel/rail interface. It is designed for rail transit vehicles and track machinery but is suitable for other industrial applications requiring control of friction.

ASTM #		TYPICAL CHARACTERISTICS
	Coefficient of Friction	0.18 – 0.42
	Wear Rate	1" per 2500 miles (25 mm per 4000 km)
	Appearance	Opaque, Dark Grey, Solid
	Quality Standards	Determination of burning behavior: ISO 4589-2:2017 Smoke Generation: ISO 5659-2:2017 Environmentally Safe: Non-GLP Fish Toxicity
D-2240	Surface Hardness	84-85 Shore "D"

The above are average values. Minor variations which do not affect product performance are to be expected in normal manufacturing.

PACKAGING

100 Per Case

For warranty information: <http://www.whitmores.com/pdf/warranty.pdf>

You can also email us at sales@whitmores.com

Or write to the Sales Department at the address below.

930 Whitmore Drive • Rockwall, Texas 75087 • USA • (972) 771-1000 • 800-699-6318

An ISO 9001 and ISO 14001 registered company • www.whitmores.com