

TitanTrax Shield®

TEST RESULTS ANALYSES / OVERVIEW

Independent testing results from a certified lab are an important and relevant diagnosis and precursor to the success of any product. TitanTrax Shield® (or "Shield") testing results provide a keen insight into the success of the product.

In developing our TitanTrax Shield® product we tested for the following characteristics to evaluate the material under severe site conditions with various product applications in many environmental conditions. Tests were completed in hope to exhibit qualities of safety and utilization with the TitanTrax Shield®. Tests on the Shield included: flammability, water permeability and vapor transmission, strength of fabric under duress, stability under high and low temperature conditions and effects of water on the material.

FLAMMABILITY: The fire test response standard describes a test method for the determination of the flammability of materials when exposed to an ignition source under controlled laboratory conditions. The acceptance criterion of these standards requires that at least seven (7) out of eight (8) individual specimens pass the test; TitanTrax Shield® passed with ALL test samples.

VAPOR TRANSMISSION: The water vapor transmission test, WVTR, is used to determine the amount of water vapor that could transmit up from a wet substrate. The TitanTrax Shield®, although not intended as a vapor barrier, is constructed to prevent running water from infiltrating and damaging the base or asphalt of a track. As the test results indicate, TitanTrax Shield® prevents water from draining into the underlying base yet will allow limited amounts of vapor transmission from a wet substrate to vent thru the surface. This amount of transmission is greatly diminished once the surface is primed to receive the urethane or latex track system on top. The Shield tested an average of less than 3 grams or .007 gals of water vapor transmitted upward over a 24-hour period.

TENSILE STRENGTH: The Shield was also tested and evaluated for tensile properties. This assists to ensure the product performs well under the duress involved with installation of the track surface as well as heavy use associated with the finished track once attached to the Shield. Constant stop, start and dynamic competition forces from an athlete's contact with the surface can place strain on the underlayment and surface. TitanTrax Shield® performed well with greater than 154 psi lengthwise and over 202 psi across its width. The material was able to elongate over 26%. TitanTrax Shield® can also withstand upwards of 46.5 lbs of peak force with regards to usable values related to the products' tear strength.

STABILITY: As running tracks are installed in very diverse climatic environments the Shield needed to be extremely stable in dry, wet, hot, cold and humid weather conditions. To be dimensionally and thermally stable a fabric should not exceed a 0.027-inch change in length or cross direction when subjected to these diverse conditions. At no time did the Shield change more than .014" in either direction, with an average change of only .007".

As testing proves, the physical properties of the TitanTrax Shield® provide unparalleled performance characteristics and assist with improving the characteristics of the track applied on top.