T&I ABSOLUTE SHIELD

Made in JAPAN

Ultra Anti-Corrosion, Durability, and High Quality

Main Ingredients: Transition metal oxide glass (SiO_2) / Water-soluble alcohols such as IPA

Achieves an astonishing 435 kj/mol ultraviolet destruction energy, far exceeding the <410 kj/mol> threshold.

A carbon-free, quartz-based inorganic solvent specially designed to prevent oxidation and deterioration

Long-term durability (measured in decades)
Ministry of Land, Infrastructure, Transport and Tourism quality test / Flame-retardant glass certification.

Complete rust prevention that can withstand spray tests with eight times the concentration of seawater.
Salt spray test (SST) specifications, JIS K5600-7:2014 JIS H8502:1999 test specifications.

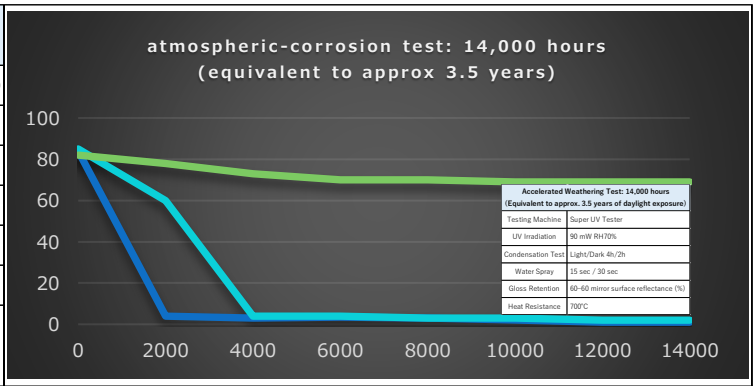
Contact Information / T&I Co., Ltd. For inquiries, please contact us by email: info@tandi-sys.jp

T&I Absolute Shield

T&I Racing

Various test results: excellent weather resistance and resistance to deterioration

Solvent Characteristics Water-Soluble Alcohols such as IPA	
UV Degradation Energy Resistance Threshold	> 435 kJ/mol (Threshold: <410 kJ/mol)
Main Component Ratio in Solution	57%
Heat Resistance Temperature	700℃
Refractive Index (By Peck Line Method)	1.43
Specific Insulation Resistance (25°C / Ω·cm)	1014 <
Viscosity	40cp
Main Test Data & Regulatory Approvals Hazard Symbols	



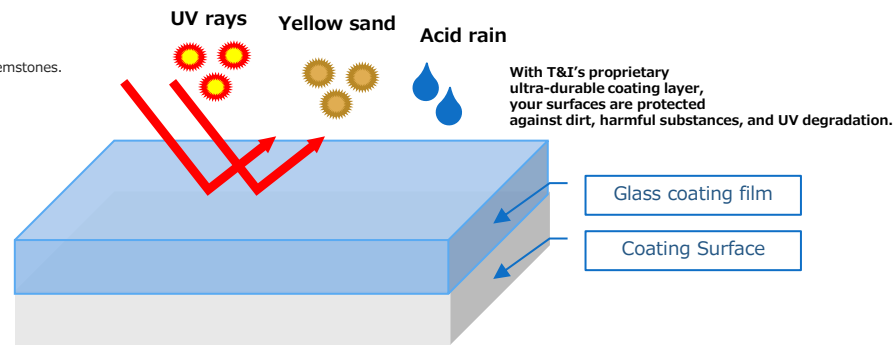
MLIT (Ministry of Land, Infrastructure, Transport and Tourism) Notification	MLIT Notified Test (Certified as equivalent to glass composition)
MHLW (Ministry of Health, Labour and Welfare) Notification Polymer Testing & Evaluation Center	METI-Designated Inspection Organization under Industrial Standardization Act MHLW-Designated Inspection Organization under Food Sanitation Act
Functionality Test for Railway Vehicle Application	Japan Association of Railway Rolling Stock and Machinery
Standards for Food Sanitation & Food Additives	Organization for the Promotion of Science and Technology Strategies

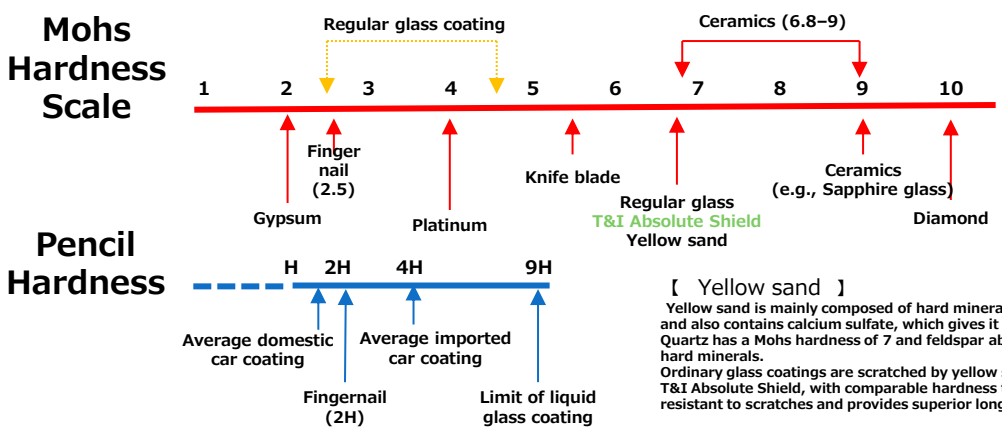
Test Item	Test Conditions (JIS Standard or Equivalent)	Test Result
Weather Resistance	Super UV Tester 14,000h (Equivalent to approx. 3 years of daylight exposure)	No abnormalities
Adhesion (Tape)	JIS K5400 Cross-cut test with adhesive tape	100 / 100
Adhesive Strength	Tensile pull-off test using SS400 steel plate (Building Research Institute method)	35.3 kgf
Salt Resistance	Immersion in 3.8% NaCl aqueous solution for 1 month	No abnormalities
Acid Resistance	Immersion in 5% sulfuric acid (H_2SO_4) solution for 1 month	No abnormalities
Solvent Resistance	Rubbing test with lacquer, thinner, and unleaded gasoline (500g × φ10, back-and-forth motion)	No abnormalities
Solvent Category	Category 4 / Class 1 Petroleum-Based Solvents (Japanese Fire Service Act classification)	Hazard Class II

Salt spray test conducted under Japanese Industrial Standard JIS Z2371:
tested at 8× the concentration of natural seawater, proving exceptional corrosion resistance.

【 What is Mohs Hardness? 】
Mohs hardness is a scale used to measure the hardness of minerals such as gemstones.
It is divided into 10 levels, ranging from 1 (the softest) to 10 (the hardest).

Mohs Hardness	Characteristics
1	The softest mineral with a smooth, slippery feel. Easily scratched with a fingernail.
2	Can just barely be scratched with a fingernail.
3	Can be scratched with a copper coin.
4	Easily scratched with a knife blade.
5	Can be scratched with a knife, but with some difficulty.
6	Cannot be scratched with a knife; instead, the blade becomes damaged.
7	Can scratch glass and steel.
8	Can scratch quartz.
9	Can scratch both quartz and topaz.
10	The hardest natural mineral on Earth; can even scratch corundum.





【 Yellow sand 】
Yellow sand is mainly composed of hard minerals such as quartz and feldspar, and also contains calcium sulfate, which gives it alkaline properties.
Quartz has a Mohs hardness of 7 and feldspar about 6, both considered very hard minerals.
Ordinary glass coatings are scratched by yellow sand because it is harder.
T&I Absolute Shield, with comparable hardness to yellow sand, is highly resistant to scratches and provides superior long-term protection.

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