

COLTECH® TRANSELAST

TECHNICAL DATA SHEET
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Transparent Polyurethane Waterproofing / Protective Coating

Product description

The COLTECH TRANSELAST is a transparent, hard-elastic, one component, aliphatic polyurethane, high-solids coating, used for long-lasting waterproofing and protection of wooden surfaces in Marine applications.

This high-technology coating is UV-stable, non-yellowing, weather stable, alkali and chemical resistant and even after aging it remains transparent and elastic.

The COLTECH TRANSELAST protects and waterproofs wooden surfaces against humidity, water penetration, salt corrosion, frost, smog and acid rain.

When cured it creates a permanent elastic, thick layer coating which does not blister, crack or decay as other transparent marine varnishes do.

The COLTECH TRANSELAST is using a unique curing system (moisture triggered), and unlike other similar systems it does not react with moisture (moisture-cured) and does not form bubbles

Uses

The COLTECH TRANSELAST is widely used for protection / waterproofing of Interior / Exterior wooden surfaces in Marine applications as:

- Wooden Ship Decks
- Wooden Railings
- Wooden Walls
- Wooden Parts, etc.

The COLTECH TRANSELAST is also suitable for coating, waterproofing and protection of concrete, wood, glass, ceramics, FRP and other surfaces in Marine and Construction applications

Advantages

- Simple application (roller or airless spray).
- Transparent.
- UV-stable.
- Non-yellowing.
- When applied forms a seamless, elastic, transparent membrane without joints or leak possibilities.
- Provides permanent elasticity with very high tear resistance, thus does not break over time.
- Maintains its properties over a temperature span of -30°C to +90°C.
- Resistant to water and seawater.
- Resistant to frost.
- Full surface adherence.
- The waterproofed/protected surface can be walked on.
- Over 15 years of positive feedback worldwide.

Consumption

0,8-1,0 kg/m² in two or more layers

Colors

The COLTECH TRANSELAST is supplied transparent and glossy.

Technical data*

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane high-solids pre-polymer	
Elongation at Break	322%	DIN EN ISO 527
Tensile Strength	25.4 N/mm ²	DIN EN ISO 527
E-modulus	69.5 N/mm ²	DIN EN ISO 527
Tear resistance	56.9 N/mm	DIN ISO 34, Method B
Elongation at break after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	298%	DIN EN ISO 527
Tensile strength after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	25.5 N/mm ²	DIN EN ISO 527
Gloss retention after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	Good	DIN 67530
Surface chalking after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	No chalking observed. Chalking grade 0	DIN EN ISO 4628-6
Hardness (SHORE D Scale)	25	ASTM D 2240
Water vapor permeability	8.05 gr/m ² 24hours	EN ISO 12572
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to wood	>2,0 N/mm ² (wood failure)	ASTM D 903 (ELCOMETER)
Application Temperature	5°C to 35°C	
Tack Free Time	8 hours	
Light Trafficking Time	24 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, water, seawater, oils and lubricants.	

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Application


Surface Preparation

Careful surface preparation is essential for optimum finish and durability. The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the coating membrane. Maximum moisture content should not exceed 5%. Old coatings/varnishes, dirt, fats, oils, organic substances and dust **need to be removed by mechanical grinder**. Possible surface irregularities need to be smoothed. Any loose pieces and dust need to be thoroughly removed.

WARNING: Do not wash surface with water! The surface must be as dry.

WARNING: Do not apply the COLTECH TRANSELAST on surfaces treated in the past with wax, oils, silicon, siloxane or other water-repellents, because of expected poor adhesion. We recommend an adhesion test, if circumstances and surface history are not clear.

Priming

Prime wooden surfaces with COLTECH TRANSELAST diluted up to 25% max with COLTECH TRANSELAST SOLVENT, in  layer. Allow 6-18 hours to cure.

Application Transparent waterproofing/protection membrane

Apply the COLTECH TRANSELAST coating onto the prepared/primed surface by roller, brush, airless spray or suitable teeth trowel, and allow 12-18 hours to cure. Following the same procedure, apply multiple layers (min 3 layers), depending on the final requested finish.

ADVICE: The first coat of COLTECH TRANSELAST GLOSS/BRILLIUM should be diluted up to 20-25% with COLTECH TRANSELAST SOLVENT.

Allow to dry for 6-18 hours depending on the weather and relative humidity. The second coat is diluted 10-5% with the solvent, the remaining coats with the product in pure form. In normal cases with 3 layers it will be more than enough (depending on the surface).

ATTENTION: Do not apply the COLTECH TRANSELAST over 1mm thickness (dry film) per layer. In cases where a new layer of COLTECH TRANSELAST is to be applied over an old layer of COLTECH TRANSELAST (older than 72 hours), softly sand and then solvent wipe the old coating with COLTECH TRANSELAST SOLVENT to activate the old surface.

For best results, the temperature during application and cure should be between 5°C and 30°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

WARNING: The COLTECH TRANSELAST system is slippery when wet. In order to avoid slipperiness, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details.

Packaging

Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture and direct sunlight. Storage temperature: 5°-30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Safety measures

See information supplied by the manufacturer. Please study the Safety Data sheet. **PROFESSIONAL USE ONLY**

Our technical advice for use, whether verbal, written or in tests, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We are liable only for our products being free from faults; correct application of our products therefore falls entirely within your scope of liability and responsibility. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.

* All values represent typical values and are not part of the product specification.