



LIFELAST™
Innovation Through Formulation

DURAGARD™ TSX

TECHNICAL DATA SHEET

EFFECTIVE: 9/12/16

PRODUCT DESCRIPTION

CHEMICAL DESCRIPTION

Solventless Aromatic Polyurethane, Chemical Cure, ASTM Type V

USAGE

DuraGard TSX is a 100% solids, two-component polyurethane coating that contains no volatile organic compounds (VOC) or solvents. TSX is a high-performance urethane that incorporates the physical properties and toughness normally only found in cast urethanes. TSX was formulated for applications requiring high sliding abrasion resistance and incremental impact resistance. With a hardness of Shore D50, TSX has a good combination of hardness for slip and flexibility for abrasion and impact. The unique chemistry of TSX has excellent hydrolytic stability and hydrocarbon resistance. DuraGard TSX is designed specifically to provide very fast cure times, while at the same time demonstrating excellent adhesion. DuraGard TSX is applied by an approved LifeLast spray system.

COLORS

Standard color is yellow. Custom colors available on request.

TYPICAL APPLICATIONS

- **Trucking Industry**
- **Material Handling Equipment**
- **Slurry Pipelines and Tanks**

PRODUCT ADVANTAGES

EXCELLENT SLIDING ABRASION RESISTANCE

Provides excellent wear protection in abrasive environments

GREAT FLEXIBILITY

Expands, contracts and flexes with the substrate

EXCELLENT HYDROLYTIC STABILITY

Retains properties in moist environments

FAST CURE TIME

Quick return-to-service times

GOOD CORROSION RESISTANCE

No primer necessary for non-immersion applications

HIGH BUILD CHARACTERISTICS

Application thicknesses from 20 mils to 500 mils in one application; completely encapsulates welds, rivets and edges

COATING SYSTEMS

PRIMERS

- **Steel, Non-Ferrous Metals & Galvanized Steel, Concrete, & Wood:** Self-priming, Primall-125 or Primall-160

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TECHNICAL DATA

SOLIDS VOLUME

100 percent

MIX RATIO BY VOLUME

2 : 1 (TSX Resin : Activator 2300)

RECOMMENDED DRY FILM THICKNESS

20 mils up to 500 mils; thickness varies with application. Consult a LifeLast technical representative for information.

COVERAGE

- Theoretical: 80.2 ft²/gallon @ 20 mils
- Spray: ≈ 70-75 ft²/gallon @ 20 mils

NET WEIGHT PER GALLON (RED)

- Resin: 9.3 ± 0.2 lbs/gallon
- Activator: 10.1 ± 0.2 lbs/gallon
- Mixed: 9.6 ± 0.2 lbs/gallon

CURE TIME @ 75°F

Tack Free	Recoat Time	To Immersion	To Normal Use
15 min.	< 6 hours	24 hours	12 hours

SHELF LIFE

12 months at recommended storage temperatures in sealed, unopened containers.

STORAGE

- Temperature
 - Resin: Min 50°F, Max 120°F
 - Activator 2300: Min 55°F, Max 120°F
- Containers must be kept sealed in a dry environment.
- Contact LifeLast for continuous storage above 90°F

SHIPPING INSTRUCTIONS

Unheated trailer, no special requirements. Keep dry.

APPLICATION

SURFACE PREPARATION

Preparation requirements vary with application. Refer to the *DuraGard TSX Application Specification Sheet* or contact a LifeLast technical representative for assistance.

MIXING

Preheat Resin to at least 90°F or it will be a waxy solid. Power mix contents of resin containers for a minimum of 30 minutes, making sure to remove all pigment from the bottom and sides of the container.

GEL TIME

≈ 2 minutes @ 75°F

SPRAY TEMPERATURE*

Resin: 120°F - 150°F; Activator 2300: 80°F - 150°F

*Exact temperatures depend on spray equipment setup

SURFACE TEMPERATURE

Min. 40°F, Max 140°F; surface should be clean, dry and more than 5°F above dew point.

AMBIENT CONDITIONS

Min. 0°F, Max 120°F

Relative humidity should be less than 85%. Ambient air temperature must be no less than 5°F above the dew point.

SPRAY EQUIPMENT

Refer to *DuraGard TSX Application Specification Sheet* for recommended spray equipment and setup. **Spray equipment must be approved by LifeLast.**

PHYSICAL PROPERTIES		
Test	Standard	Result
Adhesion to Steel	ASTM D4541; A.2	3500 psi
Adhesion to Steel	ASTM D6677	Rating - 10
Tensile Strength	ASTM D412	5500 psi
Elongation	ASTM D412	250%
Flexibility	ASTM D522	No cracking or delamination – 1" Mandrel
Hardness, Shore D	ASTM D2240	50±5
Abrasion Resistance	ASTM G65	0.019 cm ³ /1000 rev.

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