



**LIFELAST™**  
*Innovation Through Formulation*

## DURAGARD™ TS

### TECHNICAL DATA SHEET

EFFECTIVE: 9/12/16

#### PRODUCT DESCRIPTION

##### CHEMICAL DESCRIPTION

Solventless Aromatic Polyurethane, Chemical Cure, ASTM Type V

##### USAGE

DuraGard TS is a 100% solids, two-component polyurethane coating that contains no volatile organic compounds (VOC) or solvents. DuraGard TS is a high-performance urethane specifically formulated for high-wear applications. DuraGard TS incorporates the physical properties and toughness normally only found in cast urethanes into a spray-applied coating system. DuraGard TS is formulated for applications requiring high abrasion and impact resistance with high hardness for cut resistance and added slip. Although DuraGard TS has a Shore D hardness of 70, it is very flexible and impact resistant. The unique chemistry of DuraGard TS has excellent hydrolytic stability and hydrocarbon resistance. A combination of release agents, which are distributed evenly throughout the cured film, provides DuraGard TS excellent slickness and release properties, even as the coating wears. DuraGard TS is designed to provide very fast cure times, while at the same time demonstrating excellent adhesion. DuraGard TS is applied by an approved LifeLast spray system.

##### COLORS

Standard color is charcoal. Custom colors available on request.

##### TYPICAL APPLICATIONS

- **Trucking Industry**
- **Material Handling Equipment**
- **Pipes**

#### PRODUCT ADVANTAGES

##### EXCELLENT ABRASION, CUT & IMPACT RESISTANT

Very wear-resistant

##### GREAT FLEXIBILITY

Expands, contracts and flexes with substrate

##### HIGH HARDNESS

Increases slip and cut resistance

##### EXCELLENT RELEASE PROPERTIES

Internal release agents provide slick surface throughout the film

##### EXCELLENT HYDROLYTIC STABILITY

Retains properties in moist environments

##### FAST CURE TIME

Quick return-to-service time

##### 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 (TS 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 ft<sup>2</sup>/gallon @ 20 mils
- Spray: ≈ 70-75 ft<sup>2</sup>/gallon @ 20 mils

#### NET WEIGHT PER GALLON (CHARCOAL)

- Resin: 9.2 ± 0.2 lbs/gallon
- Activator: 10.1 ± 0.2 lbs/gallon
- Mixed: 9.5 ± 0.2 lbs/gallon

#### CURE TIME @ 75°F

Tack Free	Recoat Time	To Immersion	To Normal Use
15 min.	< 1 hour	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

#### PHYSICAL PROPERTIES

Test	Standard	Result
Adhesion to Steel	ASTM D4541; A.2	3500 psi
Tensile Strength	ASTM D412	5500 psi
Elongation	ASTM D412	300%
Flexibility	ASTM D522	No cracking or delamination – 1/8" Mandrel
Hardness, Shore D	ASTM D2240	70±3
Abrasion Resistance	ASTM G65	0.069 cm <sup>3</sup> /1000 rev.

#### SURFACE PREPARATION

Preparation requirements vary with application. Refer to the *DuraGard TS 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

≈ 3 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 TS Application Specification Sheet* for recommended spray equipment and setup. **Spray equipment must be approved by LifeLast.**

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