



# DURAGARD® W-270R

## TECHNICAL DATA SHEET

EFFECTIVE: 7/21/20

### PRODUCT DESCRIPTION

#### CHEMICAL DESCRIPTION

Solventless Aromatic Polyurethane, Chemical Cure, ASTM Type V

#### USAGE

DuraGard W-270R (DGW-270R) is a 100% solids, two-component polyurethane coating that contains no volatile organic compounds (VOC) or solvents. DGW-270R is a high-performance urethane specifically formulated for high-wear applications. DGW-270R incorporates the physical properties and toughness normally only found in cast urethanes into a spray-applied coating system. DGW-270R is formulated for applications requiring high abrasion and impact resistance with high hardness for cut resistance and added slip. Although DGW-270R has a Shore D hardness of 70, it is very flexible and impact resistant. The unique chemistry of DGW-270R has excellent hydrolytic stability and hydrocarbon resistance. A combination of release agents, which are distributed evenly throughout the cured film, provides DGW-270R excellent slickness and release properties, even as the coating wears. DGW-270R is designed to provide very fast cure times, while at the same time demonstrating excellent adhesion. DuraGard W-270R 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 [DGW-270R (POLYOL) : Activator 2300 (ISO)]

### 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)

- POLYOL: 9.2 ± 0.2 lbs/gallon
- ISO: 10.1 ± 0.2 lbs/gallon
- Mixed: 9.5 ± 0.2 lbs/gallon

### CURE TIME @ 70°F (21°C) - 75°F (24°C)\*

Tack Free	Recoat Time	To Immersion	To Normal Use
15 min.	< 1 hour	24 hours	12 hours

\*Varies by application technique, thickness & temperature

### SHELF LIFE

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

### STORAGE

- Temperature
  - ◊ POLYOL: Min 50°F (10°C), Max 120°F (49°C)
  - ◊ ISO: Min 55°F (13°C), Max 120°F (49°C)
- Containers must be kept sealed in a dry environment.
- Contact LifeLast for continuous storage above 90°F (32°C)

## APPLICATION

### SHIPPING INSTRUCTIONS

Unheated trailer, no special requirements. Keep dry.

### SURFACE PREPARATION

Preparation requirements vary with application. Refer to the *DuraGard W-270R Application Specification Sheet* or contact a LifeLast technical representative for assistance.

### MIXING

Preheat POLYOL to at least 90°F (32°C) 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 (24°C)

### SPRAY TEMPERATURE\*

POLYOL: 120°F (49°C) - 150°F (66°C); ISO: 80°F (27°C) - 150°F (66°C)

\*Exact temperatures depend on spray equipment setup

### SURFACE TEMPERATURE

Min. 40°F (4°C) , Max 140°F (60°C); surface should be clean, dry and more than 5°F (3°C) above dew point.

### AMBIENT CONDITIONS

- Min. 0°F (-18°C), Max 120°F (49°C)
- Relative humidity should be less than 85%. Ambient air temperature must be no less than 5°F (3°C) above the dew point.

### SPRAY EQUIPMENT

Refer to *DuraGard W-270R 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
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.

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