



LIFELAST®
Innovation Through Formulation

DURAGARD® W-270R

TECHNICAL DATA SHEET

EFFECTIVE: 10/15/2019

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 ft²/gallon @ 20 mils
- Spray: ≈ 70-75 ft²/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 ³ /1000 rev.

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