

**PRODUCT DESCRIPTION**

**CHEMICAL DESCRIPTION**

Solventless Elastomeric Aromatic Polyurethane, Chemical Cure, ASTM Type V

**PRODUCT USAGE**

DuraShield 320 is a 100% solids, two-component polyurethane coating that contains no volatile organic compounds (VOC) or solvents. Formulated as a durable, flexible, chemical resistant coating, DuraShield 320 provides good abrasion and impact resistance for ferrous and non-ferrous metals, concrete and other surfaces, as well. DuraShield 320's permeability is lower than most other competitive 100% solid urethanes. DuraShield 320 is a softer, more flexible coating than DuraShield 310 and has a longer pot life for easier hand application. Application of DuraShield 320 is accomplished by spray using a certified LifeLast spray system. (Ask a LifeLast technical representative for information on hand-applicable formulations)

**COLORS**

See LifeLast Color Chart. Standard color is almond.

**PRODUCT CERTIFICATIONS**

FDA approved for dry bulk applications. Meets USDA requirement for incidental contact. Check with a LifeLast technical representative for certified colors.

**PRODUCT ADVANTAGES**

- Highly flexible - withstands normal flexing, expanding and contracting without cracking
- Long Pot-Life for 100% solid urethanes
- Good chemical resistance - withstands most concentrated acids and bases
- High adhesion - up to 2500 psi with Primall-EP on whiteblast steel
- Highly impermeable - eliminates rust or corrosion
- High build characteristics - application thicknesses from 20 mils to inches in one application; completely encapsulates welds, rivets and edges
- Quick, inexpensive maintenance - patch holes and wear spots in minutes

**TYPICAL APPLICATIONS**

- Food Processing Industry
- Poultry, Beef, Pork Industries
- Secondary and Primary Containment
- Flooring Applications
- Tank Coatings and Linings

**SURFACE PREPARATION**

Preparation requirements vary with application. Refer to a LifeLast Application Specification Guide or contact your designated LifeLast technical representative for assistance.

**COATING SYSTEMS**

**PRIMERS**

**Steel:** Self-priming or *LifeLast* Primal-EP Epoxy primer

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**Non-Ferrous Metals and Galvanized Steel:** *LifeLast* Primall-EP Epoxy primer

**Concrete:** Self-priming or *LifeLast* Primall-EP Epoxy primer

**Wood:** Self-priming or *LifeLast* Primall-EP

**TOPCOATS** Compatible aliphatic urethanes

**TECHNICAL DATA**

**SOLIDS VOLUME** 100 percent

**MIX RATIO BY VOLUME** 3A:1B; A - Resin, B - Activator

**RECOMMENDED DRY FILM THICKNESS** 20 mils up to inches; Thickness varies with application. Please consult your designated technical representative for assistance.

| <b>CURE TIME</b> | <i>Temperature</i> | <i>Dry To Touch</i> | <i>Recoat Time</i> | <i>To Immersion</i> | <i>To Normal Use</i> |
|------------------|--------------------|---------------------|--------------------|---------------------|----------------------|
|                  | 75°F               | 90-180 min.         | < 8 hrs.           | 12 hrs.             | 24 hrs.              |

**THEORETICAL COVERAGE** **Spray Application:** 70 sq. ft/gallon @ 20 mils, no shrinkage  
**Hand Application:** 80 sq. ft/gallon @ 20 mils, no shrinkage

**NET WEIGHT PER GALLON** **Resin:** 10.85 lbs/gallon, **Activator:** 10.3 lbs/gallon; **Mixed:** 10.7 ± 0.20 lbs/gallon

**STORAGE TEMPERATURE** **Resin:** Minimum 20°F, Maximum 120°F  
**Activator 9000:** Minimum 30°F, Maximum 120°F

**SHELF LIFE** 12 months at recommended storage temperatures. Mix unopened resin every 90 days and opened resin every 45 days.

**HEALTH AND SAFETY** Materials are safe for handling. Consult MSDS for handling and safety information.

| <b>PHYSICAL PROPERTIES</b>              |  |                                 |
|---|--|---------------------------------|
| Adhesion to Steel with Primall-EP       |  | >1860 psi                       |
| Tensile Strength (ASTM D-412)           |  | 1860 psi                        |
| Flexibility (70°F, 20°C) (ASTM D-1737)  | 50 mils:   | 180° over 0.125" Mandrel        |
| Elongation at Break (ASTM D-412-87)     |  | 80%                             |
| Moisture Vapor Transmission (F-1249-90) | 35-40 mils:  | 0.024 grams/100 in <sup>2</sup> |
| Hardness, Shore A (ASTM 2240-86),       |  | 90±3                            |
| Service Temperature                     | <b>Dry</b> – Continuous: -40°F to 180°F<br>Maximum Surge: 220°F<br><b>Immersion</b> – Insulated (max): 120°F<br>Non-Insulated: ambient |                                 |

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**APPLICATION**

**MIXING** Power mix contents of resin containers for a minimum of 15 minutes, making sure to remove all pigment from the bottom and sides of the container.

**POT LIFE** 5 - 30 minutes depending upon build level and temperature

**SURFACE TEMPERATURE** Minimum 50°F, Maximum 120°F; Surface should be clean, dry and within -10°F of the ambient temperature. Coating will not cure below 50°F. Ambient air temperature must be no less than 5°F above dew point.

**SPRAY EQUIPMENT** Graco® “Hydra-Cat” with King air head or Gusmer 20/35 set to spray at a fixed volumetric ratio of 3:1. Use Graco® R-A-C IV spray tips in sizes from 0.021” to 0.043”. **Spray equipment must be approved by LifeLast, Inc.**

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