

# LOCKWELL LPS-1000 (H) (E)

Low Pressure System Polymer Membrane

## Product Description

Lockwell LPS-1000 (H) is a fast set low pressure cold applied modified polymer which is designed for repairing the damaged areas on existing thermoset linings or membrane and can be applied on new truck beds, van, SUV interiors. These application techniques can be used for variety of other applications to include expansion/control joints, horse floats, boats (Jet Ski), chassis, outdoor furniture, etc.

Two versions of LPS 1000 are available, higher elongation and lower surface hardness (E) and lower elongation harder surface (H), please consult your LW representative for further technical assistance.

Lockwell LPS-1000 (H) performs well in anticorrosion and waterproofing applications on steel. It can be applied at very low temperatures to higher temperature than most traditional repair systems. This modified polymer being an elastomeric seamless membrane displays good chemical resistance, thermal stability and excellent UV resistance. The product shows reduced permeation and is less sensitive to moisture when applied. LPS-1000 (H) is widely used geographically in mining and general corrosion protection as a DIY for vehicle chassis corrosion protection against salts.

## Features

- 100% Solids with zero VOC
- Fast reactivity and cure time resulting in almost immediate return to-service time
- Tough and Elastomeric
- Seamless, resilient, flexible and tough
- Chemical Resistant (consult LOCKWELL SYSTEMS)
- Low Temperature Flexibility
- Good corrosion protection
- Impact, tear and abrasion resistant
- Waterproofing membrane
- High Build, Low pressure application

## Application Area

- Truck bed Surfaces and Chassis
- Utility vehicles Truck
- Cargo holds
- Boat Linings
- Industrial Floorings
- Walkways
- Waterproof Decking
- Mold castings
- Encapsulation of Fiber glass bodies and Polystyrene Foams
- Secondary Containment Lining with or without Geo textile

## Technical/ Performance Data

Solids by Volume	100%
Volatile Organic Compounds	None
Gel Time	10-11Seconds
Tack Free Time (@1 mm thickness)	30 -45 Seconds
Recoat Time	6-12 Hours
Hardness, ASTM 02240	53-55 Shore D
Tensile Strength, ASTM D412	13.79 ±1.38 MPa
Elongation, ASTM D412	225±50 %
Tear Strength {Die C ASTM 412}	30.7-35.1 kN/m
Flash Point Pensky Martin (ASTM 093)	>93°C
Service Temperature (Dry)	-29°C to 93°C
Shelf life@ 25 °C (from date of delivery)	6 months

## Typical Wet Properties

Material Property	Component A (Isocyanate)	Component B (Resin)
Viscosity (Cps @ 25°C)	600-800	2500-3000
Mix ratio (by volume)	1 : 1	
Theoretical Coverage	1L = 1mm thick over 1m2.	
Specific Gravity (of mixed materials)	1.09 kg/liter	

## Application Guideline

Prior to application we have ensure the substrate has been completed and air compressor is working with sufficient and good quality air.

The supplied air (quality) must be free from oil, grease & moisture. If contaminated air is used, it will cause blisters, lumps, pinholes, fisheyes and uneven porous membrane.

The supplied air must have a sufficient quality (10 CFM) and pressure (90 PSI). If quality of air is not sufficient, the spray gun piston could not get enough thrust to press the Cartridge and thus the gun will get jam on its full load due to insufficient air quantity. Similarly if the air pressure is not sufficient, the spray gun movement will be slow and materials on the static mixture will get set before it reaches its tip end. So, it is important that the supplied air must have sufficient pressure, quantity and quality. The selection of Air compressor should be in such a way that is must meet the quantity (Capacity) and pressure criteria.

A static mixer has to be fixed in front of the dual cartridge outlet. Dual cartridge has to be placed inside the gun assembly and piston to be engaged to hold the cartridges in place. An air cap and air supply has to be fixed in front of the static mixer. Ensure the piston is in forward motion as required.

Do a test spray with the dual cartridge gun on a cardboard or plastic sheet and adjust the air pressure and quantity until a desired spray pattern visible.

Ensure the surface is ready and surrounding unwanted areas were protected. Spray the polyurea using the dual cartridge gun at constant speed and slow movement across the surface. Ensure the correct DFT is applied; if not immediately build up the thickness as required. The applied film will be tack-free within 2 – 3 minutes. Contact your local distributor for more information.

### System Specification

#### Primer

Refer to Lockwell Systems technical representatives and distributors to verify specific application recommendations for primer specifications.

#### Recommended Thickness

Typical thickness for most application would be 2 - 4 mm but can be applied in multiple passes to any desired thickness. Minimum recommended thickness is 1 mm. below this product may be slow to cure and may not develop optimum properties. Apply in multiple coats of 0.2-0.5 mm per pass.

#### Number of Coats

This product can be applied in thicknesses from 1mm up to several cm in one monolithic coat. To build to specification, allow just enough cure time for the first coat to become firm, and then spray the next coat. Do not exceed recommended recoat window s. When building to more than 4mm thickness, pause for at least 4-5 minutes every 3mm (approximately) to avoid exotherm glass crack effects.

Sometimes two or more coats are applied using different colors as a visual wear indicator. The additional coats should be applied as soon as possible after the preceding coat has gone tack-free, but no longer between coats than the specified recoat window.

Contact your distributor for reactivation requirements for coating over cured product.

#### Top Coat

An aliphatic system Lockwell UP-115 solar resistant, polyaspartic polyurea topcoat or "other LW approved" may be required for some applications, particularly where colour stability is required (this product is UV stable, but not color stable). Contact your distributor for a range of options. The top coat shall be applied as soon as possible following the final coat reaching tack-free status, with a maximum time between coats as specified by the recoat window of this product.

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### Storage and Handling Precautions

Lockwell LPS-1000 has a shelf life of six (6) months on factory delivered, unopened, sealed containers. Keep away from extreme heat, freezing and moisture. Store the materials on wooden pallets to avoid direct contact on the ground. If stored for a long period of time, rotate cartridges regularly.

Do not open until ready to use. Due to its aromatic composition, Lockwell LPS-1000 will tend to yellow or darken in color after exposure to UV light.

### Packing

Lockwell LPS-1000 is available in 1.5 Litres Cartridge Pack. Each set contains 750 ml of Part A & Part B. Lockwell LPS-1000 is shipped in cartons which contains six (6) cartridge sets with static mixers.

### Additional Information – Disclaimer

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials and equipment used, as well as varying working conditions and environments beyond our control we strictly recommend carrying out intensive trials to test the suitability of our products with regard to the required processes and applications. This data sheet is provided free of charge and we do not accept any liability with regard to the above information or with regard to any verbal recommendation, except for cases where we are liable of gross negligence or false intention.