



BULLET LINER 1

Description

BULLET LINER 1 is a Gen II polyurea hybrid spray on elastomer formulation which has low sensitivity to high humidity and moisture in the air or substrate. **BULLET LINER 1** provides a flexible but extremely tough monolithic membrane. Exclusive to Bullet Liner dealers worldwide, this flagship formulation has unmatched spray ability and a fine grit, uniform finish.

Proposed Uses

BULLET LINER 1 is a fast cure, textured surface, purpose-built material designed for automotive applications such as pickup truck bed liners, trailers, military applications and service/fleet vehicles. It exhibits excellent adhesion to most materials and is suitable as a protective-abrasive-impact liner for cementitious, wood, and/or metal surfaces. This Gen II renewable chemistry has excellent chemical and moisture resistance.

Product Application Parameters			
Property	Test Method	"A"	"B"
Specific Gravity	ASTM D-1638	1.15	1.08
Viscosity	Brookfield LVF	600 cps +100	1000 cps +100
Mixing Ratio	By Volume	1	1
Mixing Ratio	By Weight	53	47
Pounds Per Gallon	From Spec. Gravity	9.6	8.5
Temp. At Spray Gun	N/A	145°F	145°F
Gel Time	String	3-4 sec	3-4 sec
Dry to Touch	N/A	8-10 sec	8-10 sec
Total Cure	N/A	24 hours	24 hours
Cured Film Service Temp.	N/A	-40°F to 200°F	-40°F to 200°F
Relative Humidity	N/A	MAX 85%	MAX 85%

Physical Properties	
Property	Result
Shore A Hardness (ASTM D-2240)	85 - 90
Density (pcf) (ASTM D-1622)	70
Tensile Strength (ASTM D-2370)	2300 psi minimum
Abrasion Resistance (taber) (D-4060)	0.3% per 1,000 cycles or less
Elongation % (ASTM D-2370)	150 % minimum
Tear Strength (ASTM D-1004)	400 pli minimum
Moisture Vapor Transmission, Perms (E96)	0.025 @ 30 MILS

Processing Characteristics	
Property	Result
Component Temperature at Spray Head:	
A Component	145°F - 160°F
B Component	145°F - 160°F
Minimum System Pressure	2200 psi
Gel Time	3-4 sec
Cure Time	24 hours
Recommended Application Temp. Range	50°F to 90°F

Application Requirements

Spray Equipment

Spray equipment must be designed to produce a minimum of 2,500-psi with an output of 1.5 gallon per minute. The heating component of the equipment must be able to maintain a temperature at the gun of 150° F. The hose on the equipment must be heated and be rated a minimum of 3,000-psi burst pressure. The spray gun must also be rated at the pressures and throughputs required.

Substrate Parameters

The substrate must be dry! A minimum of 5° F above the dew point is mandatory. The ambient relative humidity should not be above 85%. Pin holing may occur if the above parameters are not strictly followed. Applicator shall check initial climatic conditions. A small area shall be sprayed and checked for proper application. Applicator may continue, if upon close inspection, the sprayed sample meets quality standards.

Coverage

The material theoretically will cover 1,600 square feet/100 gal drum set at 100 mil dry film thickness. Coverage of the substrate should include a waste factor based on conditions at the site and type of substrate to which the material is being applied.

Disclaimer

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Call Carlisle Polyurethane Systems for technical questions. 855-2-BULLET (28-5538).

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