

**PART NUMBERS:**

 Part # 60101-1 BattleJacket<sup>®</sup> CRS Part A ISO

 Part # 60102-1 BattleJacket<sup>®</sup> CRS Part B RESIN

**DESCRIPTION:**

Battle-proven for nearly two decades throughout the U.S. military, BattleJacket<sup>®</sup> is a revolutionary self-sealing, self-healing, fire protective urethane polymer coating used to protect vehicles, fuel cells, holding tanks, pipelines, railcars, and countless other assets. The BattleJacket<sup>®</sup> coating acts as an instant sealant when the coated surface is pierced by a bullet or projectile, mitigating fuel loss and potential subsequent explosion. Additionally, BattleJacket<sup>®</sup> protects treated surfaces from UV, weather, corrosion, fire, and chemical spills. BattleJacket<sup>®</sup> patented system has multiple formulas, tailorable to meet your specific requirements.

**TYPICAL USES:**

- Used to protect vehicles, fuel cells, holding tanks, pipelines, railcars, and countless other assets.
- Protects treated surfaces from UV, weather, corrosion, fire, and chemical spills.

**FEATURES AND BENEFITS:**

- Unique spray-on self-sealing / self-healing polymer, prevents fuel loss.
- Can be applied to metals and plastic.
- Adds protection from corrosion and abrasion.
- Increases structural integrity.
- Mitigates vibration and acoustics.
- Sustains high pressures to 150 psi.
- “Smart” embedded sensor capability.
- Fire suppression integration.
- Title 40 section 112 (Oil Pollution Prevention) compliant.
- Remains fully functional from -45deg F to 300deg F.

<b>CHEMICAL PROPERTIES*:</b>	<b>Standard Test</b>	<b>ISO (A)</b>	<b>RESIN (B)</b>
Specific Gravity (grams/cc)	ASTM D-792	1.08 - 1.18	.99 - 1.09
Viscosity, cps		600 - 700	450 - 550
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds, calculated		0 lbs/gal	0 lbs/gal
Mix Ratio, Parts per Volume		1	1
Mix Ratio, Parts per Weight		109	100
Gel Time, Seconds		4 + 2	
Tack Free, Seconds		6 - 8	
Shelf Life - Unopened Containers		12 months	12 months

\*Properties were tested at 77° F (25° C).

**TYPICAL PHYSICAL PROPERTIES:**

	<b>Test</b>	<b>Result</b>
Hardness (Shore A)	ASTM D-2240	90 ± 5
Tensile Strength (psi)**	ASTM D-412	2150 - 2300
Tear Resistance (pli)** Die C	ASTM D-624	335 - 395
Elongation (%)	ASTM D-412	275 - 350†
Impact Resistance (lbs)	ASTM D-256	160
Density (lb/ft3)	ASTM D-1622	69 - 70
Mandrel Bend, 180°, 1 inch mandrel	ASTM D-522	Pass

\*\*Properties were checked of 1/16" (62 mils), (1.6 mm) thick stock.

†Properties were tested at 77° F - 125° F (25° C - 50° C).

**PROCESSING PARAMETERS:**

Test samples were sprayed using the following:

Equipment Used	Process Pressure	Spray Gun	Mix Module
Graco Reactor EXP-2	2300 psi (static) / 1900 - 2000 psi (dynamic)	Fusion-Air-Purge	AR2929

Process Temperatures: The system settings required to achieve quality lining application will vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum lining quality.

Isocyanate Temperature (A)	Resin Temperature (B)	Hoses - High Pressure	Substrate Surface
140 - 160° F (60 - 71° C)	140 - 150° F (60 - 66° C)	155° F (68° C)	60 - 110° F (15 - 43° C)

**CHEMICAL RESISTANCE:**

Good resistance to many routine chemicals such as: weak acids, weak alkalis, oils, and cleaning agents. For specific applications and/or information, consult with a Rhino Linings® representative.

**LIMITATIONS:**

Avoid application to high density polyethylene or thermo plastics

**SUBSTRATES:**

Metals, wood, concrete, fiberglass, and geotextiles.

**DRY FILM THICKNESS RANGE:**

Varies based on application. Lining thickness can vary from a minimum of 1/16" (62.5 mils), (1.5 mm) for non-load bearing or abrasion-resistant linings up to unlimited thickness.

**HOW SUPPLIED:**

Net weight per set is 910 pounds. A set of BattleJacket® CRS consists of one drum of 'A' Component (475 pounds net weight) and one drum of 'B' Component (435 pounds net weight).

**COLOR OPTIONS:**

Natural, Industrial Tan, & Federal Green

**STORAGE:**

BattleJacket® CRS Resin and/or Iso may be stored for one year from date of manufacture at room temperature (~77° F (25° C) provided the products are stored in the original sealed container.

**SAFETY PRECAUTIONS:**

**Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS)**

This chemical system requires the use of proper safety equipment and procedures. Please follow the Rhino Linings product SDS for detailed information and handling guidelines.

**For Your Protection:** The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage, and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to end users and processors.

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**Contact Rhino Linings Technical Support at 858-450-0411 for additional questions.**

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