

# **BallisticSkin**

# **Two-Component 100% Solids Super-Polymer**

## **TECHNICAL DATA SHEET**

#### PRODUCT DESCRIPTION

BallisticSkin is an ultra-tough, energy absorbing, superpolymer skin that is used primarily for ballistic proofing and shrapnel mitigation. BallisticSkin is capable of absorbing very high impact energy and can withstand firepower from 9mm, 40 and 45 caliber bullets as well as 44 magnum. BallisticSkin is extremely tear resistance and can withstand high heat capacities whereby demonstrating ultimate toughness. BallisticSkin may be used to strengthen a variety of military grade substrates used for transportation vehicles, armament assemblies and structural building reinforcement. Generally, BallisticSkin super-polymers are used in some type of ballistic shielding applications. These materials may be applied to many types of structural substrates which include high strength steel, 6061 Aluminum, high-strength composites, wood laminates, reinforced masonry and concrete. These unique materials provide extreme protection for safe-houses, personnel vehicles, government buildings, armed outposts and special aircraft. Sprayed thickness of BallisticSkin may vary depending on substrates applied to and threat level necessary. BallisticSkin performs best when the materials has time to age and fully cure. BallisticSkin samples that have been aged for 30 days or more perform exceptionally well, whereas testing on freshly sprayed materials indicated poor results. For specific applications, please contact our technical support group.

## **TECHNICAL APPLICATION DATA**

Physical application of BallisticSkin requires a 2-component high pressure liquid pumping machine. Surfaces must be prepped for cleanliness and use of an adhesion primer is recommended to acquire superior adhesion, which is vital to contributing to the total energy absorption of the system. Application temperature ranges from 40°F to 150°F. Functional operation temperature ranges from -20°F to 250°F. Surface appearance is normally glossy and smooth.

BallisticSkin may be color-tinted if desired. Refer to SDS for material and safety standard procedures.

### **BallisticSkin PHYSICAL PROPERTIES**

| Hardness                    | ASTM D785  | 785 55-60 D       |  |
|-----------------------------|------------|-------------------|--|
| Tensile Strength            | ASTM D412  | 3750 psi          |  |
| Elongation                  | ASTM D412  | 350%              |  |
| Water Absorption (24 hr.)   | ASTM D570  | 0.25%             |  |
| Moisture Vapor Transmission | ASTM E96   | 0.24 perms        |  |
| Taber Abrasion CS17         | ASTM D4060 | <30 mg/1k cycle   |  |
| Tear Strength               | ASTM D624  | 690 lbs./lin. in. |  |
| Gel Time                    | Time       | 5-15 sec.         |  |
| Mix Ratio                   | PBV        | 1A – 1B           |  |

#### ADHESION RESULTS

| Typical Substrates per ASTM D-4541 Elcometer            |           |                                     |  |
|---|-----------|-------------------------------------|--|
| Concrete*   | >300 psi  | Cohesive failure; excellent bonding |  |
| Steel*  | >1000 psi | Excellent bonding                   |  |
| Composite Lamination*                                   | >1000 psi | Saturated; excellent bonding        |  |
| *All substrates primed with SuperSkinSystems' Primer 28 |           |                                     |  |

## **HEALTH AND SAFETY**

Read the Safety Data Sheet (SDS) and container labels for detailed health and safety information. This product is intended for industrial use by properly trained professional applicators only.

#### WARRANTY

The information herein is believed to be reliable, but unknown risks may be present. Superskinsystems, Inc., warrants only that the materials shall be of merchantable quality. This warranty is in lieu of all other written or unwritten, expressed or implied warranties. Superskinsystems, Inc., expressly disclaims any warranty of fitness for a particular purpose, or freedom from patent infringement. Accordingly, Buyer assumes all risks whatsoever as to the use of these materials. Buyer's exclusive remedy as to any breach of warranty or negligence claim shall be limited to the purchase price of the materials. Failure to strictly adhere to recommended procedures shall relieve SUPERSKINSYSTEMS INC. of all liability with respect to the materials or the use thereof.





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