

# **SIERRA BRAVO**

ALIPHATIC URETHANE

# TECHNICAL DATA SHEET

## **DESCRIPTION:**

Sierra Bravo is an impressive, two-component aliphatic polyester polyurethane finish coat. It offers superior protection against abrasions and chemicals while maintaining a UV stable status that complies with VOC regulations in North America. The impact resistant coating boasts abrasion resistance making it durable for long lasting results, as well resisting staining from Skydrol and Betadine solutions. Paired with BallistiX's epoxy system you'll have excellent adhesion one applied to properly prepared concrete or cementitious overlays along with their specialized Polyurethane - Acrylic Primer & Concrete Sealer products resulting in optimal performance and longevity of the surface being protected! Sierra Bravo provides superior protection to BallistiX applications in a variety of locations. From aircraft hangars and industrial kitchens, automotive showrooms, laboratories and research centers, hospitals and health care facilities as well as wine & spirits processing plants - Sierra Bravo ensures surfaces are secured against heavy foot traffic, forklift damage plus various chemical exposures.

## PRIMARY APPLICATIONS:

- UV-stable top coat
- Aircraft hangar floors
- Production areas
- · Maintenance facilities
- Warehouses

## ADVANTAGES:

- Long pot life
- Respectable odor
- Superior chemical resistance (compared to standard epoxy)
- Excellent chemical resistance
- Light stable and good gloss retention
- VOC complaint

#### TECHNICAL DATA

PACKAGING	1 US gal (3.78 L)
COVERAGE RATE	800 ft²/gallon
RECOMMENDED THICKNESS	3.2 wet mils (81 microns)
MIX RATIO, BY VOLUME	A:B=3:1+1lb aluminum oxide
DENSITY (KG/LITRE)	Part A: 1.14 / Part B:0.90 / Mixed: 1.09
POT LIFE	60 minutes @ 77°F (25°C)
SHELF LIFE	12 months in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.
WORKING TIME	30 minutes
voc	75.4 g/L

<sup>\*</sup> The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage. \*

<sup>\*</sup> Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.



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### **PROPERTIES**

@ 73°F (23°C) AND 50% R.H.

ABRASION RESISTANCE, ASTM D4060 (CS17/1000 CYCLES/ 1000 G)	18.8
COEFFICIENT OF FRICTION, ASTM D2047	0.60
TENSILE STRENGTH, PSI (MPA), ASTM D2370	6250 (43.092)
PERCENT ELONGATION, ASTM D2370	7

<sup>\*</sup> The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage.

## **SURFACE PREPARATION:**

<u>OLD CONCRETE</u>: For optimum results on old concrete surfaces, cleaning with specialized methods such as BLASTRAC sand blasting or diamond grinding is essential to remove any contaminants. Oils and fats must be thoroughly removed before proceeding. For maximum adhesion strength of the product applied, a primer should always be used in conjunction — acid etching followed by rinsing may also help open up the pores for better absorption if deemed necessary after testing chloride levels, moisture content and pH values of the substrate beforehand. Application should not proceed until all surface areas are completely dry.

NEW CONCRETE: To achieve maximum performance, new concrete should be allowed to cure for at least 30 days in order to reach a minimum compression resistance of 25 MPa (3625 lb/inch2) and traction resistance of 1.5 MPa (218 lb/in2). To prep the surface prior to coating application, BLASTRAC sand blasting or diamond grinding with grits coarser than 30 is recommended; alternatively acid etching may also suffice but requires an extra step involving thorough rinsing afterwards. A primer coat can further ensure proper adhesion while minimizing out–gassing effects.

#### MIXING:

Materials should be conditioned to a minimum temperature of 50°F (10°C) before beginning the process. Each component must then be mixed separately and thoroughly, at which point Component B can carefully added into Component A in a 4A:1B ratio using low-revolving drill speed for one minute or more (300 – 450 rpm). Aluminum oxide should also be incorporated by sprinkling in slowly with consistent scraping action along the bottom and sides of container every 5–10 minutes during mixing period; however do not mix an amount exceeding its intended pot life.

## **APPLICATION:**

#### APPLICATION - Primer Coat

To ensure a quality finish, apply the primer coating evenly and carefully with a rubber squeegee. Once complete, pass over it with a roller for an overall uniform application to avoid any pools of material building up.

#### APPLICATION - Finish Coat

For a long-lasting finish, apply SIERRA BRAVO at 800 sq. ft./gallon using a 3/8" nap roller. To create an even coat, use V-shaped cross passes when rolling out the material and be sure to avoid making any pools of excess coating as it may cause blistering in high humidity areas.

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# **CLEANING:**

Clean all tools and materials with the cleaner/thinner for epoxies. Wash hands and skin carefully with warm soapy water. Once product has hardened, it may only be removed through mechanical means.

# **RESTRICTIONS:**

- Minimum/Maximum temperature of substrate: 50°F / 86°F (10°C / 30°C)
- Maximum relative humidity during application and curing: 40%
- Substrate temperature must be 5.5°F (3°C) above dew point measured
- Humidity content of substrate must be < 4 % when coating is applied
- Do not apply on porous surfaces where a transfer of humidity may occur during application
- The application of this coating on an interior or exterior substrate without a moisture barrier is at risk of detachment (by hydrostatic pressure).
- Protect from humidity, condensation and contact with water during the 48 hour initial curing period

# **HEALTH AND SAFETY:**

In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse.

Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

\*Consult the material safety data sheet for further information.\*

#### **IMPORTANT NOTICE:**

All statements, recommendations and technical information contained in this document are accurate to the best knowledge of BallistiX. The data relates only to the specific material designated herein. It may not be valid if used in combination with any other materials. It is the users' responsibility to verify suitability of this information for their own particular use, and to test this product before use. BallistiX assumes no legal responsibility for use upon these data. BallistiX assumes no legal responsibility for any direct, indirect, consequential, economic, or any other damage except to replace the product or refund the purchase price as set out in the purchase agreement.