SAXON PAINTS.

SAXON BARRIER 205

DESCRIPTION

SAXON BARRIER 205 is a two-component, solvent-free, polyamine-cured epoxy compound formulated for ultra-high-build application. The product is reinforced with flint aggregate to provide excellent mechanical strength, impact resistance, abrasion resistance, and long-term protection in highly demanding service environments. It is designed to form a tough, durable barrier coating suitable for areas exposed to severe wear, heavy-duty operation, and aggressive atmospheric or immersion conditions.

Designed to protect steel surfaces operating in severe service environments where high levels of abrasion, impact, and corrosion resistance are required. It is especially suitable for splash zone areas on offshore oil and gas platforms, wharf piles, ship loading facilities, jetties, decks, bridges, chemical plants, pulp and paper mills, and water treatment facilities.

When used with the appropriate aggregate, the coating can provide a tough, durable, non-slip deck system, making it ideal for heliports, work platforms, walkways, and other high-traffic areas on offshore structures.

Saxon BARRIER 205 also provides excellent resistance to cathodic disbandment, making it compatible with both sacrificial anode and impressed current cathodic protection systems. This makes it well suited for the long-term protection of subsea structures, as well as shop-applied or field-applied protection for hot, cathodically protected oil and gas pipelines. It may also be used as a heavy-duty tank lining in highly abrasive service conditions, such as slurry tanks, including CIL/CIP tanks used in the gold mining industry.

MAIN PROPERTIES

- Designed for the protection of steel and concrete surfaces exposed to demanding service conditions.
- Provides a seamless, water-impermeable protective layer that helps prevent corrosion and substrate deterioration.
- Formulated as a solvent-free, spray-applied epoxy cladding, suitable for high-build protective applications.
- Offers excellent anti-corrosive performance, making it suitable for environments where moisture, water exposure, and surface wear are present.
- Provides outstanding resistance to impact, abrasion, and mechanical wear, especially in areas subject to heavy traffic or operational abuse.
- Suitable for decks and working areas exposed to severe impact, abrasion, and frequent use.
- Delivers strong adhesion to properly prepared substrates under both dry and wet exposure conditions.
- Resistant to water and splashes of mild chemicals, providing additional protection in industrial and marine environments.
- Can be exposed to water as early as 30 minutes after application, allowing faster return to service in specific conditions.
- Produces a rough-textured surface, which can improve traction and provide a durable finish for areas requiring enhanced grip.

COLOUR AND PRODUCT PRESENTATION

Colour range	See Saxon Colour Chart (other colours available on request)
Size	10 litres – 20 litres

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MAIN PROPERTIES

PREPARED MIXED PRODUCT	
Application	Roller and brush for stripe coating or spot repair only. Spray gun/machine for product application.
Touch Dry	2 to 6 hours depending on ambient conditions.
Recoatable	48 hours, drying times will be significantly longer in cold conditions.
Coverage	0.5 m^2 per litre for 3,000 µm This numbers could be lower on highly porous surfaces.
Thinning	The amount of thinner added should not exceed 10% by volume, unless otherwise stated in the product's Technical Data Sheet.
Cleaning	Clean equipment immediately after use with thinner.
Colours	White (other colours available on request).
Shelf Life	Base: 24 months: if correctly stored to manufacturer's guidelines. Activator: 24 months: if correctly stored to manufacturer's guidelines.
Fully cured	5 days.
DFT	3,000 – 5,000 µm depending on system required.
Volume of Solids	100%

- Prepare only the amount of material that can be applied within the product's working time, typically no more than **30 minutes** after mixing.
- Before mixing, ensure that both the **base and hardener** are at an appropriate temperature, ideally around **20˚C / 68˚F**, to support proper blending and application properties.
- Always use **mechanical mixing equipment** to achieve a consistent and uniform mixture.
- Start by stirring the base component, then slowly add the hardener while mixing continuously.
- Mix the components thoroughly and efficiently until a fully homogeneous material is obtained, with no visible streaks, unmixed areas, or inconsistencies.
- Once mixed, apply the material promptly and avoid leaving the mixed product standing for extended periods, as this may reduce workability and affect application performance.

CURING TIME FOR DFT UP TO 3,000 µm		
Substrate temperature	Dry to touch	Fully cure
5˚C (41˚F)	10 hours	3 days
10˚C (50˚F)	6 hours	2 days
20˚C (68˚F)	4 hours	1 day
30˚C (86˚F)	3 hours	20 hours
40˚C (104˚F)	1.5 hours	10 hours

OVERCOATING INTERVAL FOR DFT up to 4,000 µm

Product	Interval	5˚C (41˚F)	10˚C (50˚F)	20˚C (68˚F)	30˚C (86˚F)	40˚C (104˚F)
Saxon BARRIER 205	Minimum	3 days	3 days	2 days	12 hours	10 hours
	Maximum	30 days	30 days	30 days	25 days	20 days

- Minimum interval with solvent-free epoxies is 1 day or immediately wet on wet

LIMITATIONS

During application and curing, the substrate temperature must be maintained above 5 ˚C (41 ˚F) and at least 3˚C (5 ˚F) above the dew point to prevent condensation. The product shall be mixed by volume at a ratio of 75:25 (base to activator), equivalent to 3:1. For proper application, the paint temperature should preferably exceed 20˚ C (68˚ F). Thorough mechanical mixing of the base and activator is essential.

Filters must be removed from the spray equipment prior to application.

Note: Do not use if the substrate is above 180 degrees Fahrenheit.

PREPARATION

Proper surface preparation is essential to achieve optimum coating performance and long-term durability. Before application, all substrates shall be structurally sound, clean, dry, and free from oil, grease, dust, laitance, loose material, corrosion products, or any other contaminants that may impair adhesion.

Steel surfaces shall be abrasive blast cleaned to a minimum standard of **ISO 8501-1 Sa 2½ (SSPC-SP10)**, achieving an angular surface profile of approximately **75–100 µm (3.0–4.0 mils)**. Concrete substrates shall be prepared by abrasive blast cleaning or other suitable mechanical methods to completely remove laitance and provide a clean, open surface suitable for coating application. Where the product is applied over an approved primer system, the primed surface must be fully cured, clean, dry, and free from contamination prior to overcoating.

For concrete applications, the substrate moisture content shall not exceed **4%**, as determined by the carbide method. During both application and curing, the substrate temperature must be maintained above **5˚C (41˚F)** and remain at least **3˚C (5˚F)** above the measured dew point to prevent condensation and ensure proper coating cure and adhesion. Environmental conditions, including ambient temperature, substrate temperature, relative humidity, and dew point, should be continuously monitored throughout the application process to ensure compliance with the coating manufacturer's recommendations.

Application

- Due to its high density and aggregate content, the sprayable polymer mortar requires a robust delivery system capable of continuously transferring the mixed material from the mixing vessel to the spray gun.
- For optimum material flow and consistent application, hoses with an internal diameter of **19–25 mm (¾–1 inch)** are recommended.

- To prevent material segregation and ensure uniform pumping, hose lengths should be kept to the minimum practical distance, with smooth routing and no restrictions, sharp bends, or blockages. An undersized or obstructed hose may cause the resin to separate from the aggregate, resulting in poor material flow, equipment blockages, and dry, unpumpable mortar remaining in the line.

COATING SYSTEM

APPLICATION

Stir well before and during use.

ROLLER

For spot repairs, touch-ups, and stripe coating, the product may be applied by roller directly from the container, ensuring the roller sleeve is fully loaded with material before application. Apply the coating in a controlled and systematic manner, focusing only on the affected areas, welds, edges, corners, bolts, seams, or other localized sections requiring additional protection. Work the material evenly into the surface to achieve full coverage and proper film build, blending the repair area into the surrounding coating while the material remains wet. Maintain a manageable wet edge during application to avoid visible lap marks and ensure a uniform finish.

BRUSH

For spot repairs, touch-ups, and stripe coating, the product may be applied by brush directly from the container. Before use, ensure the brush is clean and free from dust, loose bristles, or any contamination that could affect the coating finish. Load the brush by dipping up to approximately half the length of the bristles into the product, then gently tap off any excess material against the side of the container without wiping the brush aggressively. Apply the coating in a controlled and even manner, concentrating on localized areas such as welds, edges, corners, bolts, seams, or damaged sections requiring additional protection. Avoid excessive pressure during application; allow the material to flow from the brush to achieve proper coverage, film build, and adhesion. Blend the repaired or striped area into the surrounding coating while the material remains wet to obtain a uniform finish.

SPRAY

For spray application, use heavy-duty, single-feed airless spray equipment, preferably with a 60:1 pump ratio, suitable high-pressure hoses, and

equipment capable of maintaining the required spray pressure throughout the application. The product should normally be applied without adding thinner unless otherwise recommended in the Technical Data Sheet.

For airless spray application, use an approximate nozzle orifice of **0.53 mm / 0.021 in**. At a paint temperature of **20°C / 68°F**, the minimum recommended nozzle pressure is **28.0 MPa / 280 bar / 4,061 psi**. At a paint temperature of **30°C / 86°F**, the minimum recommended nozzle pressure is **22.0 MPa / 220 bar / 3,191 psi**. Alternative spray equipment may also be used depending on the required finish, film build, material viscosity, and site conditions. Suitable equipment options include low-pressure pumps, displacement feed pumps, and pressure vessel systems, provided they can deliver the product evenly and maintaining the required nozzle pressure.

Low-pressure pump

- Recommended nozzle orifice: **6.5–10.0 mm / approx. 0.256–0.394 in**.
- Internal mix atomization is preferred.
- Recommended nozzle pressure: **0.4–0.6 MPa / 4–6 bar / 58–87 psi**.

Displacement feed pump

Suitable displacement feed pump systems may include:

- **Quick Spray Carousel Pump** and spraying equipment, or equivalent.
- **MAI 2 Pump Pictor**.
- **Graco T-Max 506 or 675**.
- **BPM 6 screw pump**.

Recommended spray parameters:

- Nozzle orifice: **4.0–5.0 mm / approx. 0.157–0.197 in**.
- Nozzle pressure: **0.4–0.6 MPa / 4–6 bar / 58–87 psi**.

Pressure vessel application

- A pressure vessel with a **bottom outlet and pressure lid** may be used.
- The vessel should not contain more than **25 liters / 6 US gallons** of material.
- Before use, the vessel and hoses should be wetted with **white spirit** to assist material flow and reduce blockage.
- Use hoses with an approximate internal diameter of **25 mm / 1 in**.
- Hose length should not exceed **7 meters / 23 ft**, preferably arranged in two lengths of approximately **3.5 meters / 11.5 ft** each.
- At low temperatures, hoses should be insulated to help maintain material workability and proper flow.
- Recommended nozzle orifice: **6.5–10.0 mm / approx. 0.256–0.394 in**.

- Internal mix atomization is preferred.
- Recommended nozzle pressure: **0.4–0.6 MPa / 4–6 bar / 58–87 psi**.

Before spraying, mask and protect all areas that are not intended to be coated using suitable masking tape, paper, or protective film. Begin application from the upper sections and work downward, applying the coating with smooth, controlled, and overlapping spray passes while maintaining a consistent wet edge. Keep the spray gun at a uniform distance from the surface and apply the material evenly to achieve the required film build, coverage, and finish.
For larger surfaces, apply in a systematic pattern using horizontal and vertical passes, or a crosshatch method where required, to obtain a full and uniform coating without missed areas, dry spray, or excessive build-up. Spray tips, nozzles, hoses, and equipment should be checked and cleaned regularly during application to prevent blockage and maintain a consistent spray pattern.

Other spray equipment or application methods may be suitable depending on site conditions; however, Saxon Technical Support should be consulted when alternative equipment is proposed.

CLEANING

Return excess material/paint to container. Wash and clean using solvents or thinner immediately after use. All application tools and spray equipment should be cleaned thoroughly immediately after use to prevent material build-up or curing inside the system. Any mixed coating remaining inside the spray unit, hoses, gun, or related equipment must be flushed out before the product reaches the end of its pot life.

HEALTH AND SAFETY RECOMMENDATIONS

Please refer to the Safety, Health and Environmental Information on the container. When preparing the surfaces avoid the inhalation of dust and/or metal particles. Wear a suitable facemask and recommended safety personal protection. Material Safety Data Sheets for this is available freely available at Saxon Paints website.

STORAGE

Store in secure dry conditions. Keep out of reach of children. Containers should be kept closed during storage. Do not empty into drains, water rivers or access routes to septic drums.

For further information contact Saxon Paints

GENERAL INFORMATION

Apply all products in accordance with BS 6150: 2006 Code of practice for painting of buildings and BS 8000: Part 12: 1989 Code of practice for decorative wallcoverings and painting.

Every care is taken to ensure that all information provided on this Technical Data Sheet is accurate. Results cannot be guaranteed by the manufacturer as it has no control over the conditions under which its products are applied.

For help or more information contact Saxon Paints or visit our website at www.saxonpaints.com Before using this product please ensure you have the latest information. The information is correct at date of issue May 2021.

WARRANTY

SAXON PAINTS warrant its title to the product, that the quality of the product conforms to Saxon Paints' specifications for such product in effect at the time of manufacture and that the product shall be delivered free of the rightful claim of any third person for infringement of any patent covering the product. This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the paints correctly and according to Saxon Paints' technical documentation. Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. These are the only warranties that Saxon Paints makes and all other express or implied warranties, under statute or arising otherwise in law, from a course of dealing or usage of trade, including without limitation, any other warranty of fitness for a particular purpose or use, are disclaimed by Saxon Paints. Any claim under this warranty must be made by Buyer to Saxon Paints in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify Saxon Paints of such non-conformance as required herein shall bar Buyer from recovery under this warranty Any suggested deviation to suit the site conditions shall be forwarded to the responsible Saxon Paints' representative for approval before commencing the work.

LIMITATIONS OF LIABILITY

The information in this document is given to the best of Saxon Paints' knowledge. The information in this sheet is intended for guidance only and is based upon laboratory tests that Saxon Paints' believes to be reliable. Saxon Paints' products are considered as semi-finished goods and as such, products are often used under conditions beyond Saxon Paints' control like the quality or condition of the substrate, or the many factors affecting the use and application of the product. The product and related information are designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. Saxon Paints' does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information. Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. Minor product variations may be implemented to comply with local requirements. Users should always consult Saxon Paints' for specific guidance on the general suitability of this product for their needs and specific application practices. If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail