PRODUCT DESCRIPTION

Aurimax is a high-performance epoxy topcoat specifically engineered to withstand extreme mechanical abrasion, harsh weather conditions, moisture, and exposure to a wide range of chemicals. As a heavy-duty finish, it's suitable for all interior and exterior applications above the waterline, including top sides, holds, engine rooms, superstructures, and decks.

Designed to combine superior waterproofing with cost efficiency through rapid curing, Aurimax is the ideal solution when time is critical. A topcoat over epoxy paint systems or (after proper inspection and successful solvent testing) over existing aged epoxy or acrylic coatings.

> Exceptional Abrasion Resistance: Perfect for high traffic surfaces.

Core Performance Attributes			
Volume Solids:	60±2%		
Surface Type:	Aluminum, Steel, Wood Composites		
Available Shades:	RAL Colorcard		
Mixing Ratio:	Double Component	Part A: 4 Part B: 1	v/v
Flash Point:	35°C		
Application Areas:	Exterior and Interior Use Above the Waterline		
Specific Gravity:	1.35g/L		

Surface Preparation

Prior to the application of PrimeGuard HB, all substrates must undergo a structured cleaning and conditioning process to ensure optimal adhesion and the long-term performance of the coating.

This procedure is designed to provide a clean and suitable surface profile, and prevent adhesion failure due to residual oils, salt, previous old or loose paint, oxidation, or moisture.

Important Safety Note: Before initiating any surface preparation or coating activities, appropriate personal protective measures must be in place. These include, but are not limited to, the use of certified PPE (Personal Protective Equipment) such as gloves, respirators, protective eyewear, and coveralls, as well as ensuring adequate ventilation and compliance with site-specific safety protocols.

Step 1: Substrate Cleaning - Profiling

Remove all previous coatings, marine growth, contamination and oxidation using a combination of high - pressure fresh water washing, scrapers, abrasive pads, blasting or sanding tools and solvent wiping. All areas to be coated must be free from: oil, grease, salt, previous coatings, paint, antifouling, sealants, any kind of residue or contamination.

Recommended Cleaning Process and conditioning:

Initial Cleaning:

- Wash down all surfaces with high pressure fresh water and remove as much as of the present contaminants or old and loose coatings or corrosion.
- Optional: Allow surfaces to air-dry or use compressed air.

Surface Profiling:

- Use scrappers, blasting or sanding tools to expose a clean surface free from any foreign material. Check if the desired min. surface roughness profile Rz 50µm – 70µm is achieved.
- Rinse thoroughly with clean, fresh water on all surfaces and allow them to air-dry or use compressed air for this purpose. If the obtained surface roughness profile does not meet the requested for the correct product performance, repeat the process until the profile meets the required Rz 50µm – 70µm.

Residue Removal:

- Rinse thoroughly with clean, fresh water on all surfaces and allow them to air-dry or use compressed air.
- Wipe the surfaces with a lint-free cotton cloth soaked in water until no visible residue remains and until the cloth remains clear.

Surface Conditioning:

- After rinsing and drying, perform the final surface check for any present contaminants, If the surface is not suitable for coating repeat cleaning steps

Application Guidelines

PrimeGuard HB must be applied following a controlled procedure to ensure optimal performance in submerged marine environments. The below described application process includes precise mixing, correct film build-up, and adherence to environmental and timing parameters. Following the outlines of this section with the recommended methods, tools to be used, and conditions for the successful coating application on metal and composite substrates.

Step 2: Application

To ensure optimal adhesion, film integrity, and long-term performance, PrimeGuard HB must be applied following the steps below:

All coating application procedures must be carried out under controlled environmental and substrate conditions, as defined by industry standards. The product must not be applied when: Ambient temperatures fall below 5°C or exceed 35°C. Substrate temperature exceeds 35°C. Dew Point is 3°C lower than the substrate temperature. Relative Humidity is above 85% as such conditions adversely affect the overall performance of the system.

Conditions	Explanation
Temp. 5°C - 40°C	Safe margin as per industry standard
Temp. D.P. ≥+ 3°C	Safe margin to prevent condensation
R.H. > 85%	Increased risk of condensation and late curing

- Caution should be taken when scheduling and avoid:
  - Painting early in the morning – evening or under humid or cold conditions.
  - Application when the substrate is cold and exposed to moist air.
  - When moisture is visibly condensing and the surface presents a “sweating” effect.
- Before commencing full-scale coating application, it is strongly recommended to conduct a preliminary test on a “blind” representative sample area. This ensures compatibility, verifies adhesion performance, and allows for adjustments of techniques if necessary.

Application Tools – Mandatory Preparation

For the application of PrimeGuard HB, the use of brand-new rollers and brushes is mandatory. Reused or contaminated tools may compromise adhesion, surface appearance, and overall system performance.

Prior to use, all new application tools must be thoroughly cleaned to remove any residual lint, loose fibers, or manufacturing debris. These particles, often left behind during production, can lead to surface defects such as inclusions, streaks, or uneven texture.

Required preparation steps:

- Inspect each tool under proper lighting for visible loose fibers, bristles or dust.
- Use low-tack adhesive tape, compressed air, or clean cloths to remove loose particles.
- Rollers should be gently rolled over a clean surface to release excess fibers.
- Brushes should be flexed and tapped to dislodge any loose bristles.

Application Method

- Apply by roller or brush in even, continuous motions.
- Avoid overworking the material or excessive back-rolling.
- **Recommended film thickness:** Apply the recommended dry film thickness (DFT) per coat.
- Multiple coats may be required depending on substrate porosity and specification. The desired dry film thickness (DFT) is ideally achieved through multiple coats. This technic promotes better adhesion, ensures uniform coverage, and minimizes the risk of under or over application in a single pass.

Application Method	Optimal DFT	Optimal WFT	Practical Coverage*
Airless Spray:	110µm	170µm	4.1 m^2/L
Roller:	75µm	115µm	7.8 m^2/L
Brush:			8.2 m^2/L
No. of Coats:	1 - 2 coats		
Thinning - Thinner:	0 – 5% in volume with: Epoxy Thinner 22		

*Practical coverage values assume a loss of approximately **30% for airless spray application** and **10% for roller and 5% for brush application**, in accordance with **ISO 23811:2009.**

Note: Applying the full thickness WFT in one heavy coat may lead to sagging, poor curing, or reduced mechanical performance. Two or more controlled applications allow for optimal film integrity and surface bonding.

Application of Critical Areas & Technique

PrimeGuard HB should be applied with the crossing method. This method ensures consistent film build, minimizing streaking, and reducing the risk of air entrapment or uneven coverage.

Application technique: PrimeGuard HB should be applied with the crossing method for better surface and intercoat adhesion. This method ensures consistent film build, minimizing streaking, and reducing the risk of air entrapment or uneven coverage.

- Avoid overworking the material or excessive back-and-forth strokes.
- Ensure that all edges are fully coated and visually inspected before curing.
- During application, care must be taken to avoid runs, sags, or excessive build-up of material. These defects compromise drying and long-term performance.
- If any runs or sags occur, they must be corrected immediately while the coating is still wet. Use a clean brush or roller to redistribute the material evenly, ensuring a smooth and uniform film.

Drying & Overcoating Schedule

Step 3: Overcoating – Drying Times

Drying times depend on ambient temperature, humidity, ventilation, and film thickness. PrimeGuard HB is designed to dry progressively, allowing safe handling and optimal adhesion between coats.

To ensure proper performance, the following guidelines must be observed:

- Touch Dry: The coating is dry to the touch but not fully cured. Avoid mechanical stress at this stage.
- Service Dry / Launching: The coating has cured sufficiently for exposure to water, mechanical loads, or service conditions.
- Minimum Overcoat Interval: The shortest time after application when a subsequent coat can be applied without compromising adhesion.
- Maximum Overcoat Interval: The maximum time after application and prior of application of a subsequent coat.

Temperature – Drying Times	15°C	20°C	25°C
Touch Dry:	5hr	$3^{1/2}$	2hr
Service Dry:	5d	3d	
Overcoating:	6hr	4hr	
Induction Time:	20min	15min	

Available Packing

5L in metal containers
20L in metal containers

Storage

The product must be stored in full compliance with applicable national regulations. Containers should be kept in a dry, temperature-controlled, and well-ventilated area**,** away from direct sunlight, moisture, and sources of ignition. All packaging must remain tightly sealed when not in use.

Health & Safety

Always refer to the safety instructions and hazard symbols indicated on the product label. Standard protective measures must be followed, including the use of gloves, safety goggles, and respiratory protection where necessary. Ensure adequate ventilation during application and curing. Avoid inhalation of vapors and prevent direct contact with skin or eyes. In case of accidental contact, rinse thoroughly with clean water and seek medical attention if irritation persists.

Important Notes

The information provided in this Technical Data Sheet is based on internal testing and laboratory evaluations and is not intended to be exhaustive. As application conditions may vary and fall outside the control of the manufacturer, Helix Coatings guarantees only the quality of the product itself. It is strongly recommended that end users consult Helix Coatings' technical and sales representatives for tailored guidance based on the specific requirements of each project.

Any use of the product without prior consultation or without communicating the project's specific ne-eds to Helix Coatings is at the sole risk of the end user. Helix Coatings cannot accept responsibility for product performance or any loss or damage resulting from improper use.

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