

Axolotl Rust

SPECIFICATION DATA SHEET

For the information of Specifiers and Trades

Product Description

Axolotl Rust is a unique and bespoke surface application for use in internal and external applications. It is a beautiful and natural surface finish that offers natural variation in colour and texture. Axolotl Rust is offered in several texture and colour options including: Brown Rust, Viper Rust, Marine Rust, Majestic Rust, Shot Rust, Nike Rust, Orange Rust & Black Rust.

The rust is achieved by first coating the substrate in iron, and then accelerating the aging to the desired patina. Axolotl Rust typically treated with a polyurethane topcoat to stop the natural rusting process and to prevent leaching by up to 95% (Orange Rust is not sealed). Anti graffiti coatings are also an additional option, which will prevent leaching even further. Reapplication of the Axolotl topcoat may be required in harsh environments to prevent leaching, this should be applied on an as-needs basis.

Axolotl Rust can be applied to virtually any substrate at any size or shape with previous projects ranging from small sculptures, through to full-scale commercial fit outs. The finished product is typically 0.7mm in thickness and is a superior choice over products such as Corten steel due to weight, cost, and logistical restrictions. Axolotl Rust can be applied to a range of substrates including MDF, Phenolic resin, CFC and treated metals. Selection of the substrate should be determined by the designer to ensure it is fit for purpose. Inert substrates where possible are preferential, however Axolotl Rust can be applied over treated aluminium's, and raw or treated mild steel depending on the location. Please note raw aluminium is not suitable for Axolotl Rust treatment, and all raw metals are not suitable for any location subject to moisture or running water.

Benefits over Corten:

- Axolotl Rust can be applied on structural elements
- Can be applied to compound curves and embossed and debossed surfaces and 3D shapes
- Leaching is reduced by up to 95%
- Cost effective
- Lightweight

As Axolotl Rust uses real iron and is applied by hand, the final result will show irregularities in colour and texture. These small irregularities enhance the natural and authentic appearance of the metal.

General Surface Preparation

Surfaces to be bonded must be in their raw state (no paint, varnishes etc. and must be dry and free of oils, rust or scale) or with a suitable pre-treatment as required. (see note on pre-treatment and preparation) Surfaces should also be kept clean and free from any contaminants that could affect the metal. Use fillers recommended below for particular materials. **Do not use oil-based putties or fillers.**

Imperfections in surfaces caused by jointing, fixings and mechanical damage will copy into the finished surface unless carefully repaired. The client acknowledges that the substrate is to be supplied free of imperfections.

Axolotl metals will penetrate into fixing holes, which should have adequate clearance or be redrilled after the metal is applied. Components should be sized to allow for the thickness of the metal, approx. 0.5 -1 mm. Axolotl Metals must be applied prior to any adjacent areas being treated. Indicate those areas that are to receive specialized masking.

Cutting

Cutting of panels must be done prior to the Axolotl treatment to avoid leaving a raw and unsealed edge. Cutting down of panels after an Axolotl Treatment has been applied can lead to the chipping of the surface coat. In the case of metal substrates, items being installed outdoors or subject to water exposure, cutting is not recommended after treatment. Cutting after treatment will leave the panel with an exposed and uncoated edge which can lead to shearing from water sitting on the edge of the panel. Cutting after treatment can also expose the metal base substrate to the applied Axolotl Metal which could lead to an electrolytic reaction. Please note any cutting after treatment is not recommended and will void the warranty.

Durability

The physical and chemical tests indicate the coatings have excellent impact resistance, high water pressure washing and very good chemical resistance to the more popular household cleansers.

Maintenance

Clean Axolotl Brown Rust surfaces with a soft lint free cloth, warm water and mild detergents only. Never use any solvents, thinners, caustics or powder cleansers. Do not use abrasives as this will potentially scratch or remove the aging. Do not drench the Rust treatment with water as it could create leaching or drip marks.

Ageing

Due to the natural oxidisation and idiosyncrasies in natural metals, Axolotl Metals are bound by the inherent properties of the material. Axolotl recommends its clients acknowledge that they understand the outcomes as outlined below:

Environmental conditions such as temperature fluctuations and humidity naturally affect the metals and may affect the outcome of the desired patina. This may lead to variations in colour and shade.

All items to be coated should be delivered in good condition. Dents, machining marks, and other inherent issues with any supplied panels will most likely be present in the finished product and may even be highlighted via the aging process. Axolotl will contact the client where possible if a defect is identified prior to treatment.

Samples illustrating the desired patina are used solely as a guide for direction of the finished product. If the client has a sample they would like Axolotl to match to they must provide the sample at the time of order, and all work will be carried out to match as best as possible.

Custom patination of metals must be performed with the direction of an approved sample.

Watermarks, drips and staining may be present in the finish, particularly on three-dimensional items due to the application of the liquid chemicals.

Lead Times

Please confirm lead times prior to delivery/commencement of work. The minimum time required for any work carried out in our factory is generally 15-20 working days, however this may increase for large or intricate surfaces, or depend upon the existing factory workload.

Test Results

Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release CSIRO and NATA tested in accordance with Australian Standard 1530.3-1989, Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release.

Ignitability Index (0-20)	Spread of Flame Index (0-10)	Heat Evolved Index (0-10)	Smoke Developed Index (0-10)
0	0	0	1

Accelerated Weathering Tests

The Axolotl Metal has undergone Accelerated Weathering tests of 4000 hours, equivalent of 20 years and shows no film breakdown and only slight black surface oxidization that would be found in solid metals. The surface oxidization can be removed with light scouring with steel wool. Under cyclic heat - rain and humidity, no form of film degradation is apparent for any of the system.

These tests were carried out on etch primed aluminium milled panels to produce the above results under laboratory conditions.

Requirements for Substrates

It is recommended that the highest quality substrate be used at all times. Axolotl are not always able to determine the quality of a product when it is delivered to us however if it is obvious we will bring it to your attention before we commence work. Axolotl do not recommend grained substrates for outdoor use. Non-grain substrates such as CFC, Masonite and Phenolic resin are preferred.

Sheet metal - The minimum thickness recommended for the metal substrate is approximately 2mm. Sheet metals can be supplied raw if suitable with the metal alloy selected for coating, or should be supplied with a pre-treatment for external use or to create a suitable barrier between the substrate and selected metal coating. (See note on pre-treatment and preparation)

Steel - Welded steel structures can be coated with Axolotl Metal however; once components have been metal coated they cannot be welded again without causing damage to the metal. Steel should be powdercoated or galvanised for external use. (See note on pre-treatment and preparation)

Customwood and CFC- Where possible it is recommended to use MDF and CFC of 9mm thickness or greater to prevent warpage. Screw and glue all joints, and use solvent to wipe off any excess glue. Fill all cracks, holes, imperfections etc. with Polyfiller or Auto Body Filler and sand to a level surface. Radius all sharp and square edges to a minimum of 1mm.

Masonry, Concrete and Plaster Cast - Pieces should be produced from moulds free of oil and release agents. Fill all imperfections with Polyfiller or casting plaster and radius all sharp points and edges to a minimum of 1mm. It is not recommended that plaster pieces be used externally.

Polystyrene - Lightly sand using 120-grade sandpaper. Imperfections in the polystyrene may read into the finish. Epoxy Resin hardener coat sanded to desired texture required for Axolotl to coat.

Fiberglass - Wash down surfaces with acetone then sand to a non-glossy surface using 120-grade sandpaper.

Plastics - Surface should be heavily scoured or sanded to obtain greater bonding. Discuss suitability with Axolotl first. Plastics can expand and contract over large surface areas when used externally.

Pre-treatment and Preparation

The recommended pre-treatment and preparation of metal substrates varies based on the material type, application (i.e internal or external), design of item, and specified Axolotl coating type.

Preparation between the base material and the Axolotl metal finish is often required to remove risk of chemical reaction; metals can naturally react with one another when the different alloys come into contact. Axolotl will express the need for pre-treatment of the substrate where possible.

In the case of powder coating, a warranty grade powder is recommended. In the case of galvanised metals, hot dip galvanisation is preferred. Axolotl recommends that the coating company providing such treatments warrant all pre-treatment and preparation.

It is the client's sole responsibility to ensure that the substrate they supply to Axolotl is suitable or has been treated with the appropriate protective coatings. In many cases a faulty coating system cannot be identified until it begins to fail. Poor quality systems can have a life span of up to 5 years; high quality systems are warranted for 15 years. Where Axolotl is able to identify a substandard pre-treatment or substandard preparation of an item that arrives into the factory we will advise the client, and works cannot proceed until the substrate is rectified. (Although visible identification of the pre-treatment grade used is generally not possible).

Axolotl coatings are reliant on the preparative work and protective coating it is bonded to; failure of the preparative coatings will directly affect the Axolotl finish. The Axolotl warranty is voided where the proper preparation requirements of a project are ignored. The warranty and details of the preparatory works should be provided to Axolotl upon request.

Proper pre-treatment is the base for any high performance coating system, and should be properly considered as the rework and rectification of a substandard system is difficult and costly.

Disclaimer: By signing Axolotl's quotation clients are acknowledging that they understand the outcomes as outlined above. The information presented herein is supplied as a guide to those who handle, install or use this product. It is important that the end user makes a determination regarding the safety procedures utilised during use of this product and ensure they are adequate. Our application of written or spoken technical recommendations that we use to support the buyer/processor is based on our experience, according to the current state of knowledge in science and practice and are not binding and shall not establish a legally valid contractual relationship, and no additional obligations under the purchase contract. Since the use and application of this product is beyond our control we cannot be held responsible for product field performance. The information represented above is the result of our considerable experience with this product but is not to be construed as a performance warranty.

METAL	TEXTURE						EFFECT				AGING						SEALER					
	CAST	PSEUDO SMOOTH	SMOOTH	LUNAR	PITTED	LIGHT	VIPER	CAYMAN	LACE	UNFINISHED	ANTIQUE	BROWN FLORENTINE	FLORENTINE	PEARL PATINA	VERDIGRIS PATINA	TARNISH	UNSEALED (TARNISH)	SEM-GLOSS TOPCOAT (STANDARD)	GLOSS TOPCOAT	ANTI GRAFFITI TOPCOAT	WAX	
ALUMINIUM	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ANTHRA ZINC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BRASS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BRONZE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
COPPER	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GOLD BRONZE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GOLD NICKEL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GRAPHITE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BLACK RUST	•																					
BROWN RUST	•																					
MARINE RUST	•																					
MAJESTIC RUST	•																					
NICKEL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PEWTER	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ROSE ALLOY	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SENTINAL COPPER	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SILVER NICKEL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
STAINLESS STEEL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TREASURY BRONZE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

PLEASE NOTE:

- Antique aging is suitable with Lunar, Pitted and Light texture only.
- Anti Graffiti topcoat is a high gloss finish.

- Verdigris Patina shows best results with a tarnish or semi-gloss sealer.
- Linish direction is to be defined in specification

SPECIFICATION

Please refer to the example below when specifying an Axolotl treatment to ensure all information necessary for quoting is provided. If the specification is to match a supplied sample or image, a photograph should be included with the specification. For best results we recommend the physical sample, or a section of it is returned when the order commences.

EXAMPLE:

Manufacturer: Axolotl
Product: Metal
Type: Brass
Texture: Pitted
Aging: Brown Florentine *refer to image
Surface effect: Carved Tortoise
Topcoat: Semi-gloss (standard)



NOTE FOR SPECIFIERS -

PLEASE ENSURE SPECIFICATION SHEET IS COPIED & ATTACHED TO TENDER DRAWINGS FOR THE REFERENCE OF ALL RELEVANT TRADES.

For further information, technical assistance or costing please contact:

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