

## Technical Data Sheet

### AmbientPro - Proshield

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**Description:** **Proshield** is a water based low VOC pure acrylic and graphene conductive paint system developed as a ground coat to provide protection against electromagnetic radiation produced from telephone towers, smart meters, radio antennas, television repeaters and/or for the protection of data interception of wireless networks.  
**Proshield** can also amplify indoor signals to improve the efficiency of RFID, Wi-Fi, and similar systems. Simply prepare the surface and apply as recommended. Refer to the provisions in this TDS for further information.

- Features:**
- Low VOC with no harmful emissions
  - Protection from high frequency radiation
  - Protection from low frequency electric fields
  - Does not contain metallic particles
  - Suitable for interior and exterior applications
  - Exceeds requirements for Green Building and Passive House projects

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**Safety Precautions:** Observe all Occupation Health and Safety (OH&S) precautions.  
Refer to the relevant Safety Data Sheets (SDS) for product safety related information.  
For further information and support: **Nutech Paint 03 9770 3000**  
<https://nutechpaint.com.au/>

**Usage warnings:**

- Protect skin and eyes
- Apply with good ventilation, do not inhale product
- Keep out of reach of children

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**Provisions:** To achieve the stated properties, Proshield requires an equipotential bond prior to priming and top coating with your desired Graphenstone product. Nutech Paint recommends consulting a trained electrical professional for further advice and technical assistance.

**Note:** *Proshield Must Only be Top Coated with Graphenstone Atmosphere range of top coat finishes*

Avoid harsh rubbing and abrasion to the top coated surface after system application.  
Optimum intercoat adhesion properties are achieved after 7 days cure.

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**Chemical Type:** Water based acrylic & graphene emulsion

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**Product Attributes:** pH: 7 ±1  
Total Volatile Organic Compounds (TVOC): <1 g/Lt  
Emission rating: Exceeds GBCA Green Star IEQ13 compliance (primer, sealer & Prep. coats)  
Solubility: In Water  
Effectiveness: 30 dB of attenuation at 900 MHz (tested to: IEEE 299:2006)  
Minimum Film Forming Temperature: 10°C

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**Typical Applications:** Hospitals, Laboratories, Domestic & Multi Density Residential, Industrial and Commercial uses where Green Building, Passive house and excellent the protection against electromagnetic radiation or improved RFID and Wi-Fi signals are required.

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<b>Recommended Substrates:</b>	Proshield is suitable for plaster, timber, masonry, brick and other similar building substrates.
<b>Coverage / Spread Rate:</b>	4-5m <sup>2</sup> /L (2 coats) Note: Coverage will depend on the porosity and roughness of the surface.
<b>Test Patch:</b>	Conduct a small test patch in an inconspicuous area to ensure adequate product performance, substrate porosity and provide an indication of the quantity required and time needed to complete project.
<b>Packaging:</b>	5L pail & 10L pail
<b>Storage:</b>	Cool, dry location. Keep from freezing and avoid contact with direct sunlight and heat.
<b>Shelf life:</b>	Stored 12 months @ 25°C Product may thicken without losing properties.
<b>NOTE:</b>	Observe spread rates and recoating requirements.
<b>Mixing/ Thinning:</b>	<b>Dilution:</b> not required  <b>Prior to Commencement:</b> Product may settle during storage and will require thorough stirring Stir thoroughly prior to use. DO NOT agitate
<b>Preparation:</b>	In accordance with AS/NZS2311 commensurate with substrate. Refer to the preparation and product recommendations outlined in this TDS.
<b>Application:</b>	Brush or Roller
<b>Drying Time</b>	<b>Note:</b> Dry times based on ambient conditions @ 25°C and 60% relative humidity. Dry times will be increased in lower temperatures or higher humidity.
<b>Touch Dry:</b>	<b>30 Minutes</b>
<b>Recoat:</b>	<b>2 – 4 Hours</b>
<b>Total Dry:</b>	<b>24 hours</b>
<b>Total Cure:</b>	Optimum intercoat adhesion properties with the top coat are achieved after 7 days cure. Total curing occurs during the first 30 days. It is recommended to avoid cleaning and/or rubbing during that period.

**SUBSTRATE CONSIDERATIONS:**

**Conditions of the substrate:** The substrate must be dry, firm, well-adhered and free from any impurities that may hinder the product from setting fully.

**Do not apply to surfaces in constant contact with water.**

**Mineral based substrate:** Concrete/ render must have been allowed to cure for a minimum 28 days.

**Preparation of the substrate:** If the substrate presents algae, mould, fungi and / or other impurities, it is recommended to thoroughly clean with specific products for this purpose.

**Substrates Note:** Must be resistant to high alkalinity.

**Salt deposits:** Brush and apply Neutralysal.

**High moisture level substrates:** 24 hours before top coat application, apply StopWater diluted 1:1 with water

**Blistered, and flaking paint:** Remove all damaged and loose paint from the surface. Fill any irregularities and sand smooth in accordance with the appropriate filler recommendations.

**Surface cracks:** the recommendation depends on the width of the crack:  
1-3 mm Apply filler (with a fiberglass mesh if >1 mm).  
3-10 mm V groove and apply filler with mesh.  
>10 mm Requires architectural assessment.

**Deteriorated render:** Remove all damaged and loose render from the surface. Repair rendered areas as required.

If the substrate presents structural cracks, moisture by capillarity, condensation or filtration, etc.; it is necessary to resolve the structural problems first. Architectural and Engineering advice should be sought prior to commencement of works.

**PREPARATION:**

- **Old paint:** Lightly sand (P220 Grit or scourer pad) and clean surfaces.
- **Absorbent substrates:** (e.g. cement blocks, brick, plaster, etc.): AmbientPro - Primer Colour Blocker
- **Wood or metal** (free of corrosion or oxidation) or without porosity: apply Four2Four Primer

**Masking:** Mask off or apply drop sheets to all areas not to be coated, to ensure no spatter or overspray.

If masking is required on freshly painted surfaces, allow first coat to dry for minimum 36 hours

**APPLICATION INSTRUCTIONS:**

**NOTE:** It is recommended that Proshield is top coated with the **Graphenstone Atmosphere** range of top coat finishes.

Refer to the relevant TDS for topcoat application and cure time requirements.

**Ambient Conditions:**

The work temperature must be between 5°C and 32°C. Do not apply in direct sunlight.

**In case of rain:** Allow substrate dry for at least 48 hours prior to coating.

**Protection from the elements:** Protect the coated surface from rain for at least 4 days.

**Brush Roller Application:**

- Paint in sections starting with cutting in borders
- Do not overload brushes and rollers
- Apply evenly in a V pattern 2 coats
- Do not paint on areas that are drying, avoid overlapping.

**Complementary products:** It is recommended to use the Graphenstone product range of primers and sealers for application, repair and/or finishing as required.

Please, refer to the relevant Technical Data Sheets or Contact Nutech Paint for further assistance.

**Do not inter-mix with any other products as specific properties may change.**

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**Clean Up:** Protecting Our Environment is important to Nutech Paint:  
Clean up with clean warm water. Do not pour leftover paint down drains or in rubbish bins. Unwanted paint should be kept in a sealed container and then disposed of via special waste collection services.  
Empty paint containers should be left open in a well ventilated area to dry out. Dispose of empty paint containers in accordance with local authority's guidelines. Always check with your local council first.

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**First Aid:** **SEEK IMMEDIATE MEDICAL ATTENTION.** Refer to the appropriate **Nutech Safety Data Sheet (SDS)** for further information. For medical emergencies only, call: 000

- In case of eye contact, flush thoroughly with water for at least 15 minutes
- In case of skin contact, wash affected areas with soap and water
- Remove and wash contaminated clothing
- If inhalation causes physical discomfort, remove to fresh air
- If discomfort persists, any breathing difficulty occurs or if swallowed, seek medical advice

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**Warranty** Nutech warrants its products to be free from defects in material and workmanship. Nutech's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at Nutech's option, to either replacement of products not conforming to this Warranty or credit to Buyer's account in the invoiced amount of the nonconforming products.  
Any claim under this Warranty must be made by Buyer to Nutech 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, or one year from the delivery date, whichever is earlier. Buyer's failure to notify Nutech of such non-conformance as required herein shall bar Buyer from recovery under this Warranty. Nutech makes no other warranties concerning the product. No other warranties, whether express, implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall Nutech be liable for consequential or incidental damages.  
Any recommendation or suggestion relating to the use of the products made by Nutech, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

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**Limitation of Liability** Nutech's liability on any claim of any kind, including claims based upon Nutech's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or part thereof which gives rise to the claim. In no event shall Nutech be liable for consequential or incidental damages.

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**Disclaimer** The information given on this data sheet is based on many years' experience and is correct to the best of our knowledge. However, since the use of our product, surface conditions, weather and a number of other factors are completely beyond our control, we can only be responsible for the quality of our product at the time of dispatch. For more information please contact our Company. As this information is of a general nature, we cannot assume any responsibility in individual cases.'

The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

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**Nutech Paint**  
For a perfect finish!

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