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## PRODUCT DATA SHEET

### BioPhene™ General purpose, multi substrate paint

#### **Description:**

Biosymph's BioPhene™ has been designed to meet the needs of the future. This state of the art paint is performance oriented and environmentally compliant.

It is a New Zealand manufactured dense Alkyd / Bitumen co-polymer, solvent based GRAPHENE paint containing Leafing aluminium. It has been developed primarily for New Zealand outdoor conditions.

Because of the Bitumen's disinfecting effect, it will retard the growth of moss or lichen.

Substrate surface preparation requirements are minimal.

BioPhene™ is specifically but not exclusively formulated to act as a versatile Graphene paint that can be used on a wide range of substrates. It is ideally suited for painting of exposed metal roofs, cement tile roofs and steel and timber structures. It is compatible and suitable to be used on a wide range of substrates. We do recommend that you do a test paint patch first to ensure it is compatible with your coated or uncoated substrate before painting the entire project.

The chemistry used in this coating maximizes performance with reduced VOC content and excellent colour fast and UV stability. This product is non-toxic and can safely be used in applications where it comes into contact with animals and children.

BioPhene™ is a flexible coating and will not break down due to distortion and movement, caused by weather exposure. Graphene stands out for being tough, flexible, light, and with a high resistance. It's calculated that graphene is 200 times more resistant than steel and five times lighter than aluminium. It has a 750% higher bending modulus than paints without graphene. Our scrub tests show a 40% more durable and harder wearing surface than paints without graphene. The addition of graphene also improves the tensile strength of the coating.

BioPhene™ has a special water/oil emulsion package that aids application, but has quicker drying times than other similar aqua-enamel coatings. Agitation during application is recommended to ensure the best finish and consistency.

This paint should be thoroughly mixed before application. Agitation during use may also be required as with all paints and coatings. *It is not recommended that any solvents, water or additives be added to this product. It can, however, be thinned with our Xylene blend thinner to a maximum of 5% if required.*

BioPhene™ paint is a versatile paint that can be used in a wide range of applications, including:

- **As a Top Coat over GilsoFlex™ or FlexsoTar™:** *BioPhene™ is specifically developed to be compatible over such bitumen-based sealers and paints.*
- **On Galvanised structures, on Concrete, on Timber and Plywood and on other timber and metal structures and substrates**

**Benefits:**

- Excellent film integrity and colour to (80 °C)
- The fully dried paint allows for cleaning with typical household cleaners, without affecting the finish
- Lower VOC emissions
- UV Stable
- Longer lasting (10+ years)
- 750% Higher bending modulus
- 40% more durable
- Non-corrosive to metals

**Physical Properties:**

Colour:	Only available in a dark almost black BRONZE colour
Odour:	Petroleum bitumen odour
Solubility:	Soluble in organic solvents (Mineral Turpentine)
Flash Point:	None
Viscosity:	ASTM D 1500cps 18-22 sec #3 Zahn Cup
Dry Schedule film:	21 °C /40 minutes
Specific Gravity:	1.18 g/cm <sup>3</sup>
Toxicity:	Not determined
Material VOC:	ASTM D-3960 406 g/l
QUV:	No gloss loss @ 300 hrs.
Clean-up:	Xylene or mineral turpentine
Shelf Life:	6 Months
Theoretical Coverage Rate:	5.0 square metres per litre at 40 microns DFT
Application:	Brush or roller, can be sprayed by airless spray equipment with suitable thinner
Dry Times:	Tack-free after 8hrs
Recoat:	Overnight, 24hrs

**Surface Preparation:**

Substrate surfaces should be free from dirt, grease, moss, lichen and should be dry before applying BioPhene™ paint. Biosymph Ltd recommends a high pressure water wash before application. Typically only one coat is required, a second coat can be applied dependent on the substrate and the required colour depth.

**Application:**

BioPhene™ paint is easy to use and can be applied using conventional air-assisted spraying equipment, airless spray equipment, brush or roller. A suitable thinner should be used to a maximum of 5% when spraying. If required, we can provide a compatible spraying thinner.

**Clean up:**

Clean hands with plenty of soap and water to remove any BioPhene™. It is recommended to use disposable gloves during application.

**Safety:**

This product contains solvents and/or other chemical ingredients. Adequate health and safety precautions should be observed during all storage and use. Please refer to this product's MSDS for complete safety information (available on our website).

**Limitations:**

The technical data and suggestions for use in this product data sheet are currently correct to the best of our knowledge, but are subject to change without notice. Because application and conditions vary and are beyond our control, we are not responsible for results obtained in using this product, even when used as suggested. The user should conduct tests to determine the suitability of the product for the intended use. Our liability (including liability for breach of warranty, strict liability in tort, negligence or otherwise) is limited exclusively to replacement of the product or refund of its price. Under no circumstance are we liable for incidental and consequential damages.

*For more information or if you have any questions regarding special applications and require further advice, please do not hesitate to give us a call.*

biosymph <sup>TM</sup> Paints and Products		
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 Timber Stain & Preserver	 100% NZ MADE IN NEW ZEALAND	 Gilsolite Roof Sealer & Paint