



GRAPHENSTONE®



About us



Graphenstone is the worlds' leading manufacturer of natural, ecological and sustainable paint systems, using the highest quality raw materials - lime, natural minerals and resins - combined with graphene, the revolutionary 21 st century 'super material'.

Graphenstone fuses traditional materials with innovation and modern technology, to deliver a natural coating with increased surface adhesion, greater flexibility, and Class 1 durability.



Our Challenge



Our paints have achieved industry's highest recognised environmental standards, with over 18 international certifications - Cradle to Cradle, WELL, LEED, BREEAM. Graphenstone paints are healthy, natural and sustainable, containing no harmful toxins, solvents or chemical preservatives, and are the perfect solution for the health of both us and our planet.

Recent global events have both focused and highlighted the importance of health and wellbeing, however, the challenge of climate change remains. With rising temperatures, erratic weather patterns and diminishing resources all terrifyingly real, we are all challenged to stem the flow of this change; Graphenstone are committed to being a major part of the solution by sourcing materials responsibly and producing the most sustainable and healthy paints available.



Climate Emergency

The problem

Governments representing 800+ million people and UK Architects have declared a Climate Emergency.

Air pollution is the top environmental risk to human health in the UK, and the fourth greatest threat to public health after cancer, heart disease and obesity.

Indoor Air quality in inner cities often up to 5 x worse than the outside air.

A 2019 study found some 34 schools, colleges and universities – all in inner London – had above legal limits of nitrogen dioxide.

Our solution

A requirement for development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Champion the use of long lasting and high quality, natural and toxin free materials.

Guidelines for minimizing emissions and impact on users – BREEAM, LEED, WELL.

An inevitable move towards a circular economy and sustainable methods of construction.



Paints, a key role to play

Conventional paints can include formaldehyde, heavy metals and chemicals known as volatile organic compounds, or VOC's, which are given off during application and can increase by up to 1000 x after painting. Latex paints can continue to off gas 6 months after application and in some cases, this can continue for up to five years after your brushes have dried!

WHO (World Health Organisation) notes that professional decorators are 40% more likely to contract lung cancer, so it is no surprise that we are now questioning the use of paints in our homes. Allergens are on the increase and reactions to chemicals and additives such as Benzene and MIT preservatives, can cause everything from mild skin rashes, to severe breathing difficulties.

The manufacture of paint is a potentially harmful process, with production involving the use of non-sustainable resources. It is estimated that all coatings (including stains and varnishes), are responsible for 1.8 % of the 2.3 million metric tons of VOC's released per year. 1 litre of paint can result in up to 30 litres of toxic waste.

It's time to change!



Lime



Graphenstone uses one of the oldest and most traditional of all building materials, lime, as the base ingredient to its natural mineral coatings. We use the highest quality natural raw materials - our lime is 98% pure - giving an unparalleled, non-yellowing white, to produce the most ecological paint available in the world.

Lime absorbs CO₂ as it cures (up to 5.5kg per 15L of paints used), improving the air quality around us. The higher alkaline paints resist mould and mildew spores and act as a natural anti bacterial coating which are fully vapour open, allowing your walls underneath to breathe for a healthier, cleaner indoor space.



Graphene



A form of pure carbon, inert graphene fibres have been fused with the natural mineral bases, to alter the properties and performance of our paints. In pure form, graphene is the strongest material ever discovered. It is 200 times stronger than steel, has almost infinite flexibility and due to its smaller molecular structure, has an incredible surface bond strength.

This 'super material' has been fused with the natural lime paints to deliver a product that combines the ultimate in tradition, innovation and technology. A natural mineral paint to meet the demands of a modern life.



What's in a tin

Paint Ingredients

Lime - Calcium Hydroxide ($\text{Ca}(\text{OH})_2$) or Slaked Lime - acts as **both** the pigment and the binder.

Calcium Carbonates (CaCO_3) - form part of the limestone based mineral fillers.

Titanium Dioxide (TiO_2) - is a naturally occurring oxide, used as additional pigment as well as for its air purification and photocatalytic properties.

Graphene - using a unique natural polymer, the graphene fibres fuse with the lime, and act as a further unique binder, providing enhanced surface bond, durability and greater flexibility.





Our Eco Facts



We have reduced CO₂ emissions by 428 tonnes by selling 1800 tonnes of paint.

1800 tonnes of paint will absorb as much CO₂ as 24,000 trees

Graphenstone paints actively purify the air we breathe, improving the environment around us

Our paints are proven to absorb CO₂, pollutants and VOC's helping to enhance our personal well being

We use the highest quality natural and sustainable minerals which are solvent and toxin free

Our paints contain no acrylics, plastics, formaldehydes, or chemical preservatives, improving your indoor air quality

Our manufacturing process is powered by 100% renewable biomass and wind energy

Water used in manufacture is in a closed loop system, meaning ZERO wasted water

All water leaving the manufacturing facility meets drinking water quality standards

Our tubs are made using 100% recycled material and are 100% recyclable

By not transporting excess water in our tubs, we can reduce our CO₂ emissions on transport by 0.45kg/15L tub

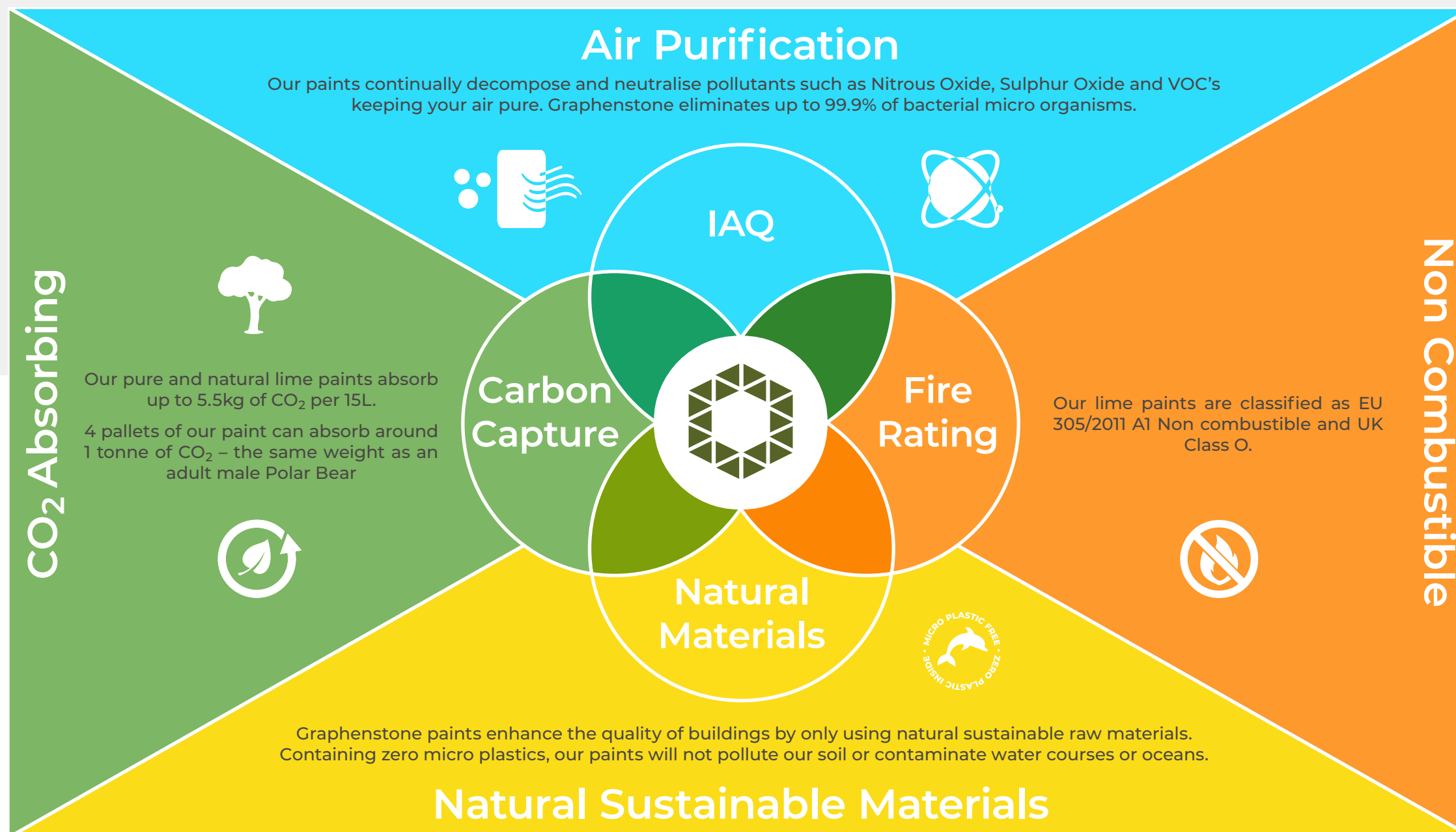
Graphenstone paints are inert as waste material and will not pose a threat to the environment, animals or human health

Our paints will not contaminate water courses or oceans and are microplastic free

Graphenstone paints are designed to be both recyclable and re-useable



Our USP's





Where to recommend us

Sustainability

Importance of Health & Well being.
Certification led projects – BREEAM, LEED, WELL, SKA
Cradle to Cradle Gold & Silver certifications – the ultimate in sustainability

Indoor pollutants in the workplace affecting health & productivity sBs - Sick building syndrome
Zero VOC's, nothing to off gas & absorb formaldehydes.

C2C Health Gold, Eurofins Indoor Air Comfort Gold, Green Tag Health Platinum

Indoor Air Quality

Healthcare

Exceptional coverage and opacity - up to 18m²/L

A1; EN 305/2011 and BS; Class '0' Fire rating

Natural, chemical free Contract Matt option

A Natural, biocide, solvent and VOC free alternative to anti-bacterial coatings

Eliminates 99.9% of bacteria

Class 1 durability for highest traffic areas

Large Residential



Case Study

156 modular built apartments and penthouses.
Manchester. Q2 2019 - Q4 2020

Ecosphere, our natural interior lime, was specified for use on 156 modular units for a project in Manchester. The key considerations was to use a hard wearing, chemical and toxin free product with the added ability to absorb CO2. By using Ecosphere, the project was able to absorb around **1.4 tonnes of CO2**.

https://youtu.be/SM_esyW3ie0





Case Study

Facebook HQ, Brock Street, London. Q1 2020 - ongoing

The key considerations for the Facebook UK HQ, was to use the most sustainable paint systems available. Focusing on IAQ and VOC emissions, with the added requirement of only using products certified Cradle to Cradle™. Ecosphere White (certified Cradle to Cradle Gold™) and Ecosphere Colour (certified Cradle to Cradle Silver™), were used in all areas and across a number of sites in London.





Case Study

Nike Converse Collaboration

Converse celebrates the diversity, duality and vibrancy of heritage around the globe by expanding “Converse City Forests” project to celebrate local roots. The street art campaign, which first launched in August 2019, is a celebration of creatives and an artistic medium for social progress.

Members of our global Converse All Stars community of creatives have partnered with Converse to paint murals in cities across the world using Graphenstone paint, which absorbs carbon dioxide to clean the surrounding air. Each mural celebrates the cultural roots of the country and its people, through the vision of the artists.

For more information and to follow this campaign - www.conversecityforests.com





The Ultimate in Sustainability



Graphenstone paints have been awarded Cradle to Cradle™ Gold & Silver certifications for their paints. Each certification level represents increasingly rigorous achievement across five critical performance categories: material health, material recycling, renewable energy and carbon management, water stewardship, and social fairness, requiring constant improvement. The material health category uncovers every single chemical component and tests to 100ppm (100 parts per million), to ensure products are made using materials that are as safe as possible for humans and the environment. Graphenstone has developed a product range with a whole green life cycle. It complies with the Reuse, Reduce and Recycle philosophy, guaranteeing the most efficient use of materials.



Certifications Overview

Certification	Ambient Pro+	Biosphere	Ecosphere	GrafClean	GCS Int & Ext	Certification	Ambient Pro+	Biosphere	Ecosphere	GrafClean	GCS Int & Ext
Air Purification - NOx reduction UNE 127197-1:2013	✓					Phthalates content - EPA 8061A:1996			✓		
Air Purification - Formaldehyde absorption - JC/T 1074-2008	✓					Reaction against Fire - BS 476-6+A1/-7 - CLASS 'O'			✓	✓	✓
Arsenic, Cadmium & Lead content ASTM E 1613-12			✓			Reaction against Fire - EU A1	✓	✓	✓		
Bacterial reduction - (60 seconds) NMX-BB-040-SCFC-1999		✓	✓			Sensitive Choice	✓	✓	✓		✓
C2C Health Gold	✓	✓	✓			SKA				✓	
CE Marking - EN 1504-2 <small>for use in humidity control for the surface protection of concrete</small>		✓		✓		Toy Safe			✓	✓	
CO2 Absorption - My Home is a tree	5.0kg/15L	5.5kg/15L	4.9kg/15L			VOC & Carcinogens - Belgian Royal Decree + *			✓		
Cradle to Cradle	GOLD	GOLD	GOLD	BRONZE	SILVER	VOC Analysis - AgBB *			✓		
Ecolabel		✓	✓			VOC Analysis - CLASS A+ France *			✓		
EPD - Environmental Product Declaration	✓	✓	✓		✓	VOC Analysis - CS 01350 *		✓	✓		
Eurofins Indoor Air Comfort Gold				✓		VOC Analysis - ISO 16000-6 *				✓	
Formaldehyde Analysis - JISK 5601-4-1:2012			✓			VOC Analysis - M1 *			✓		
Global Green Tag - LEVEL A	✓	✓	✓		✓	VOC Content - ISO 11890-1 *					✓
Green Tag Platinum	✓	✓	✓		✓	VOC Content - ISO 11890-2 *				✓	
Harmful substance content - GB 18582			✓			VOC Content - SCAQMD Method 304-91 ASTM D2369-10 *			✓		
Lead Content - CPSC-CH-E1003-09.1			✓			WELL, BREEAM, LEED	✓	✓	✓	✓	✓
Light reflectance value - BS 8493 + A1		✓									

* 'a test carried out on Ecosphere or Biosphere in terms of VOC content or VOC emissions could be applicable to Ambient Pro+' **Please see Manufacturers Declaration.**



How many coats do I need?

Our paints have a very high solid content - up to 70% - so have high opacity and great coverage so generally 2 coats is all you need onto a primed or pre painted surface.

As with all paints, stronger, darker colours can sometimes require an extra coat to get the full depth of colour.

Are your paints VOC free?

VOCs include both man made and naturally occurring chemical compounds and are present in the surrounding air, so in theory, nothing can be 100% free. Graphenstone paints have less than 0.1%/L or less than 1g/L in their natural mineral bases.

Do I need a Primer?

Onto previously painted surfaces in good condition there should be no need to prime the surface, simply apply 2-3 coats of paint diluted by 10-15%.

Onto newly plastered surfaces and dry lining, apply a single 'mist coat' of Nevada Ultra, followed by 1-2 coats of paint.

If the surface needs stabilising or requires an additional adhesive primer apply a single coat of Ambient Primer L42

For other non-absorbent surfaces, such as wood, tiles and metal use Four2Four our multi surface primer.

FAQ's

Is Graphenstone easy to apply?

Yes. Mineral paints generally have a higher solid content - ours is up to 70%. As a result, it helps to dilute the paints for easier application, but also it helps to roll the product out well to spread the minerals.

As with all paints, it is important to keep a wet edge and avoid overlapping.

Are the paints hardwearing?

All Graphenstone paints are washable and are tested to EN 13300 Class 1. Class 1 stands for the highest abrasion resistance and cleanability.

Can I spray Graphenstone paints?

Our paints spray beautifully and spraying a heavier mineral paint leaves a really fantastic finish! There are some differences to the tip sizes and pressures that may be required to standard acrylic based paints, and it is worth paying attention to cleaning the filters more regularly.

We do have a spray guide so please ask your sales rep for this information.



Promotional Campaigns

Click on images or links to open promotions in YouTube

Graphene Innovation



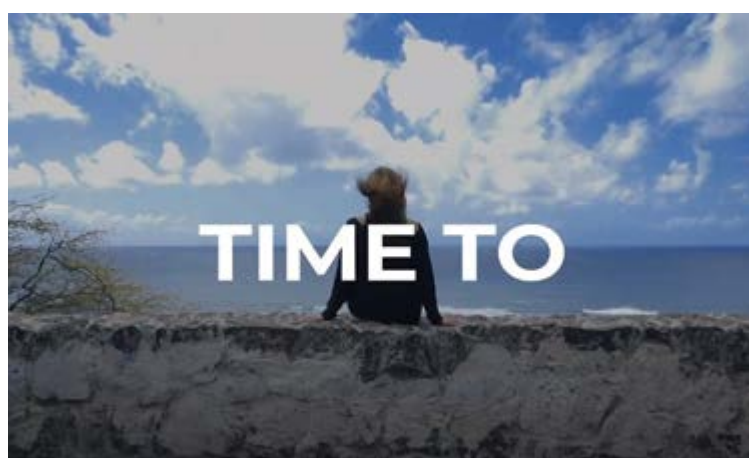
<https://www.youtube.com/watch?v=mKE9XijJdAU&t=22s>

Ambient Pro +



<https://www.youtube.com/watch?v=SGIHUoCWt7c>

Turn it around



<https://www.youtube.com/watch?v=9PnTz5bpmQM>

Lime Base



<https://www.youtube.com/watch?v=ahKlhB6w4-Y>

John Thorogood at Future build



<https://youtu.be/trxmyoUQabg>



Contact Us

Graphenstone UK offer comprehensive help and advice, site specifications and technical assistance.

For further product information or specifications please contact John Thorogood, UK Head of Sales, on 07936 906425 or **jt@graphenstone.co.uk**

For technical advice please contact Ben Sturges, UK Operations Director on 07746 591125 or **bs@graphenstone.co.uk**

For orders please contact the office on
01379 772940 or **sales@graphenstone.co.uk**



Summary

Graphenstone is the ultimate in ecological paints, composed of natural elements that purify the air we breathe.

Using traditional and sustainably sourced natural raw materials combined with the ultimate in innovation and modern technology, we design and manufacture with respect for the environment, the circular economy and energy efficiency.

Lime paints absorb CO₂, eliminating pollutants and bacteria, helping to improve the quality of our air and the world around us. By removing chemicals and solvents from our paints, we actively improve the air quality of our indoor spaces.

Clean air improves the environments around us, and as a result, helps to future proof our personal health & wellbeing.

Our paints are healthy, natural and durable, while offering a resolution to some of the most critical ecological problems, in the current era.

Graphenstone are the perfect solution for the future health of both us and our planet, offering paints for the Greener generation.



#PaintDifferent