EnergyGuard™

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Selective Transmission

with GeoBubble™ technology

Business Innovation Award 2018

IOP Institute of Physics

500 micron

GeoBubble™

An award-winning solution to increase solar gains and inhibit algae

www.geobubble.co.uk

EnergyGuard™

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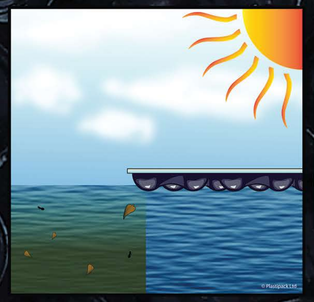
Selective Transmission

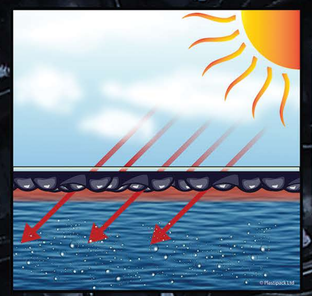
Maximise pool temperature and inhibit algae growth



Algae Inhibition

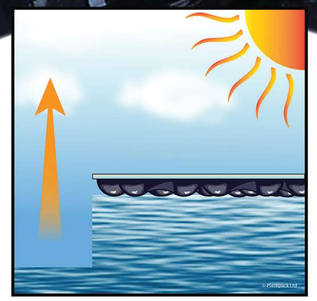
Maximising pool temperature and inhibiting algae growth at the same time is now possible with this innovative light filtering material, meaning there is no need to compromise between temperature and chemical savings.

Offering optimised solar gain and algae inhibition, the patented EnergyGuard™ Selective Transmission material now effectively delivers the best possible balance between solar heat gain, chemical and filtration reductions, making it the most innovative solar cover to date.



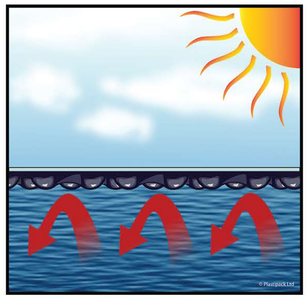
Selective Transmission

The bubble layer of the material uses a patented midnight blue pigment combination which gives the material its selective transmission properties. The pigment formulation works as a selective filter absorbing the visible wavelengths responsible for photosynthesis. This absorbed energy is passed to the pool through conduction, while the transmission properties of the bubble layer allows for Infrared radiation (IR) wavelengths to pass through the material and be directly absorbed by the water.



Prevents evaporation

The material provides a barrier to evaporation, giving the pool the ability to preserve water and reduce heat loss through evaporative cooling. Prevention of evaporative losses has the largest impact on maintaining a pool's temperature, responsible for 70% of the heat loss from the pool. Plastipack materials are tested to prevent over 98% of evaporative losses.



Insulates to prevent heat transfer

The unique profile of the GeoBubble™ technology air cells provides both buoyancy and an insulative air gap to control heat transfer enabling the material to manage the pool environment and keep the pool at the desired temperature.

GeoBubble™

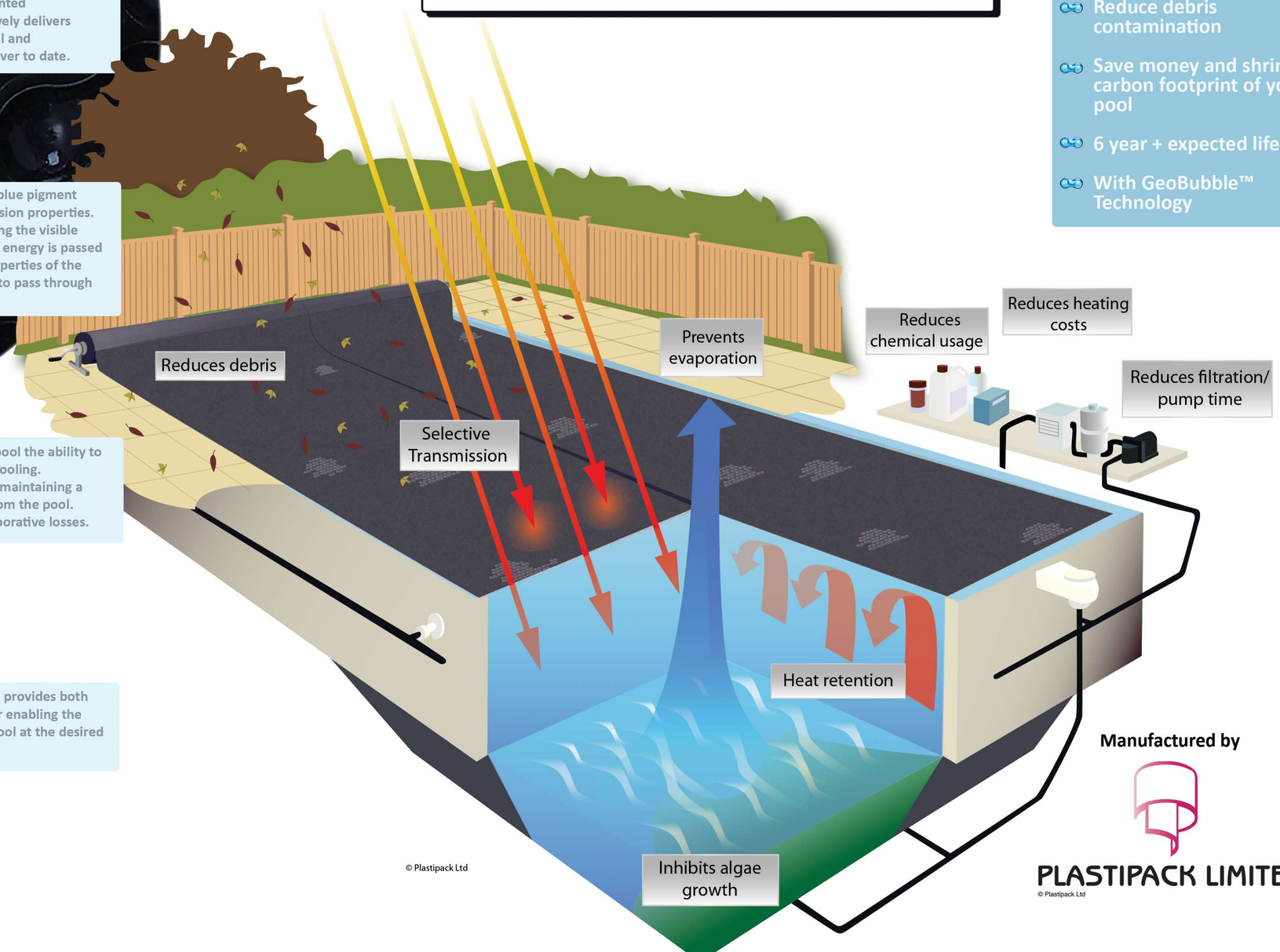
The unique GeoBubble™ design and additive package of the Guard product range have been scientifically developed to provide higher performance and longevity of the blended polyethylene cover material. Providing a sustainable 100% recyclable (LDPE 4) and cost saving product which comes with a 6-year pro rata manufactures warranty

Plastipack Ltd has been awarded the 2018 Institute of Physics Business Innovation Award for the development of EnergyGuard™ Selective Transmission material in collaboration with the University of Surrey. The award recognises Plastipack's excellence in innovation, delivering significant economical and societal impact through the application of physics.

Business Innovation Award 2018

IOP Institute of Physics

- Award-winning material
- Increase water temperature by up to 7°C
- Inhibit algae growth
- Reduce energy consumption by up to 60%
- Reduce chemical consumption by up to 60%
- Reduce filtration time by up to 50%
- Can be used as winter cover material
- Eliminates water evaporation by 98%+
- Reduce debris contamination
- Save money and shrink the carbon footprint of your pool
- 6 year + expected lifespan
- With GeoBubble™ Technology



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Specification Sheet

Polyethylene Film	Dual-Extruded
UV Protection	140 kLys/yrs 0.9% Additive 180 kLys/yrs 1.2% Additive
Colour	Midnight Blue
Thermal Properties	Vicat Softening Point (1kg) 93°C
Cold Crack Temperature	-25°C
500 microns thickness	Bubble Film = 350 micron +/- 10% Back film = 150 micron +/- 10%
Weight per m^2	460gms +/- 10%
Overall Bubble Width	2000mm / 2500mm +/- 1%
Welding Edges	30mm +/- 10%
Overall Width	2060mm / 2560mm +/- 10%
Roll Diameter	0.80m +/- 1%
Roll Length	102m +/- 2%
Est. Quantity for 120m^3 truck	2.5m = 14,535m^2 = 57 rolls 2m = 15,912m^2 = 78 rolls
Est. Quantity Containers	20ft = 4,692m^2 = 23 rolls 40ft = 11,220m^2 = 55 rolls
Packaging	Packaged in Polyethylene bags
Core Diameters	Internal 76mm/External 80mm
Identification	Batch Identification by Q.A. slip and label showing Length/Grade
Warranty	6 year pro rata warranty
GEOBUBBLE™ TECHNOLOGY	
Bubble Width x Length	15x30mm
Bubble Height	5.5mm
No. of bubble per m^2	1943

Company Information:
www.Plastipack.co.uk

Product information:
www.GeoBubble.co.uk

Water Storage:
www.VapourGuard.co.uk

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