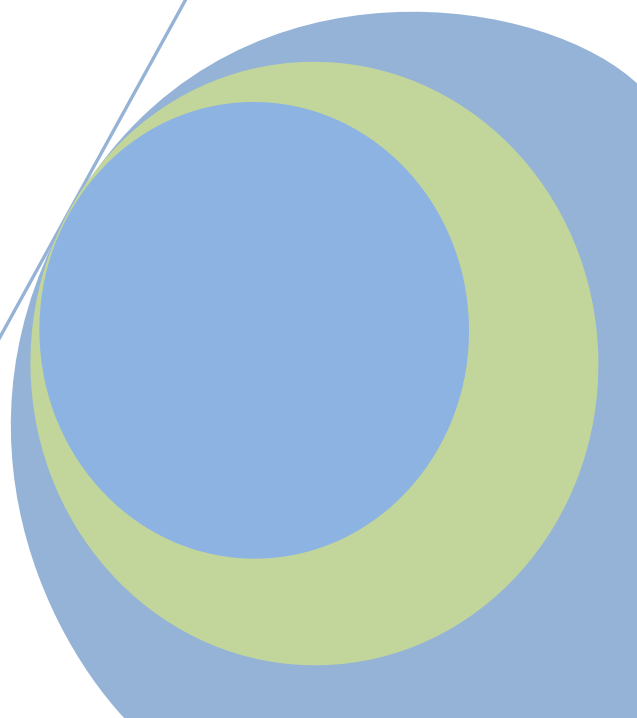
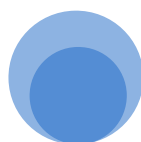
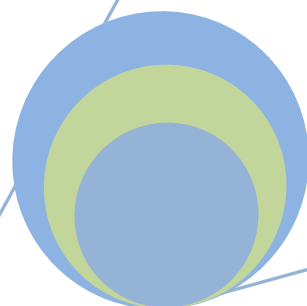
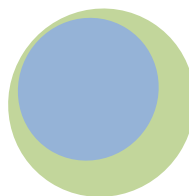
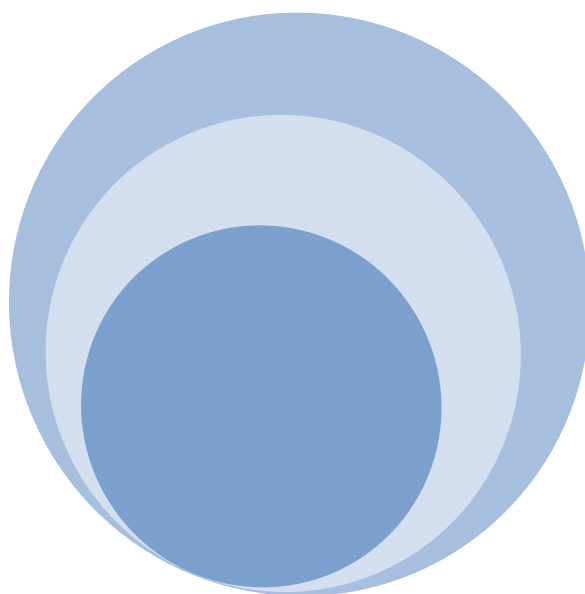




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2016年5月初版



奈星科技股份有限公司
Nanostar Technology Co., Ltd.

關於我們

奈

星科技是一家結合針對陽光熱能阻隔技術提出永久性解決方案的高科技公司，本公司採一貫化生產服務，從隔熱原料粉製程到成品，包含高透明分散液，特殊樹脂的開發，高濃度塑膠母粒的生產，針對客戶不同需求提出解決方案。應用於居住玻璃、汽車玻璃、隔熱紙、遮光罩等等的透明的隔熱項目，為人類居住環境的光學熱能阻隔及整體性的節能環保，貢獻一份心力。

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3. STARCOOL 隔熱塑膠母粒
4. STARCOOL 隔熱膜

About Us

NanoStar Technology Co., Ltd provides new, innovative and permanent solutions for your heat insulation requirements. The entire production process is vertically integrated, starting from the raw powder processing to final products which include resin dispersions and plastic masterbatches. We work closely with our customers to better meet their needs and as a result, our products have been tried, tested and ready to use automotive solar film, window film, plastic transparent roof panels, and other transparent heat insulating products. We believe sustainability is very important for our future and our products will contribute greatly to energy conservation for a better, cleaner, environment.

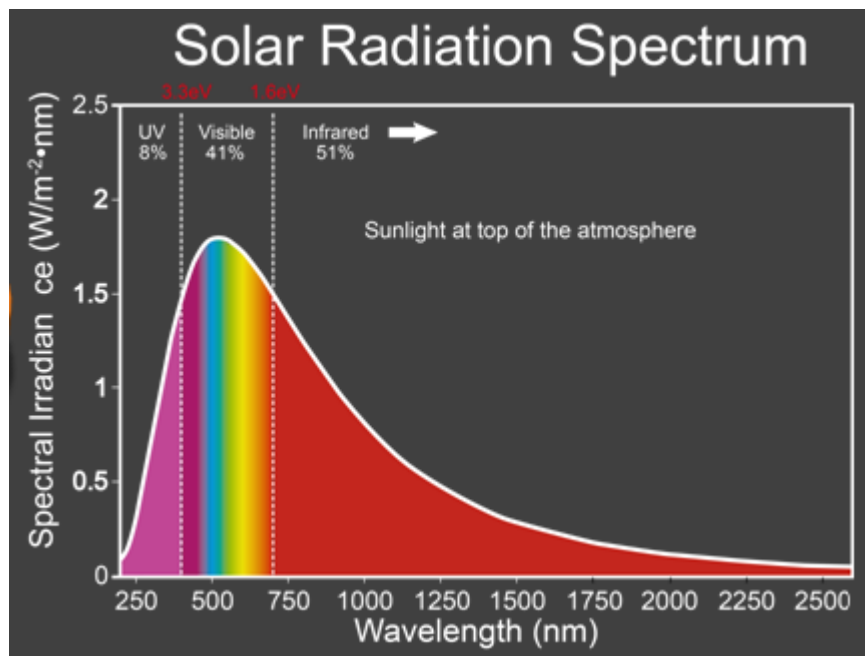
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2. STARCOOL Heat insulation dispersion (Coating Solution)
3. STARCOOL Heat insulation Plastic masterbatch (Polycarbonate, Acrylic)
4. STARCOOL Heat insulation Film (PVC, PVB)

光源及隔熱介紹

太陽光的成份是由下列的主要三部份所組成的：8%紫外線、41%可見光與51%紅外線。這三種不同能量的特徵，就是擁有不同的光譜波長。紫外線(UV)波長 100~400nm 最短，而人類的肉眼是無法看到紫外線(UV)，接下來是擁有較短波長的可見光 (Visible)400~750nm，而紅外線(Infrared)的波長是 750nm~1mm，此為不可見的太陽熱能。有一半以上的太陽熱能會產生不可見光的幅射，也就是大家所熟知的紅外線。

所以 STARCOOL 科技最主要的作用，就是要能隔離紅外線(隔熱)，在隔離紅外線的同時，卻又必須讓足夠的可見光穿透，如此才能清楚看到景像。這就是奈星科技產品的特性：高透明與高隔熱性。



Introduction

Sunlight is composed of light in three spectrums: 8% Ultraviolet (UV), 41% Visible (VLT) and 51% Infrared (IR). Light in these three spectrums have different spectral wavelengths, with Ultraviolet (UV) at around 100 - 400nm which is invisible to the human eye, followed by Visible light (VLT) at around 400 - 750nm. Lastly, the Infrared wavelength, which is highest at 750nm – 1000nm, is also invisible to the naked eye, but also carries thermal energy, or heat. From the chart above, you can see that for typical sunlight, more than half of the energy comes in the form of heat.

The main function of using products with STARCOOL technology is to resist infrared heat (high IRR), while maintaining excellent transparency (high VLT). As a result, all of our products are rated high VLT and IRR.

STARCOOL 隔熱分散液

STARCOOL Heat insulation dispersion

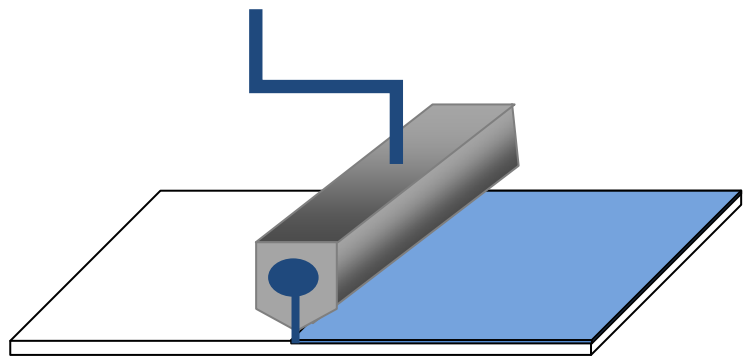
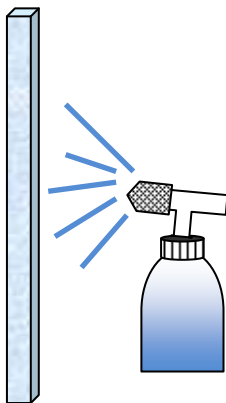


內容物：隔熱分散液

特點：高透明度與隔熱性, 且與樹脂相溶性佳

Composition: Heat insulation dispersion

Characteristic: High transparency and heat-insulation properties, good compatibility with solvent and resins.



STARCOOL 隔熱分散液已達到奈米等級的粒徑，所以具有非常優秀的透明度，同時對太陽光中的紅外光有極佳的阻隔作用。

對於玻璃塗佈及塑膠膜塗佈，尤其是汽車前檔玻璃的高規格要求，STARCOOL 隔熱分散液是最佳的產品。

STARCOOL heat-insulation dispersions contain nano size particles, achieving excellent transparency with enhanced properties of blocking Infrared when compared to other traditional products.

As a result of these high standards, STARCOOL heat-insulation dispersions are the perfect solution for glass and plastic film coating especially for use in the automotive industry.

STARCOOL 隔熱塑膠母粒

STARCOOL Heat insulation plastic masterbatch



內容物：隔熱材料＋塑膠樹脂

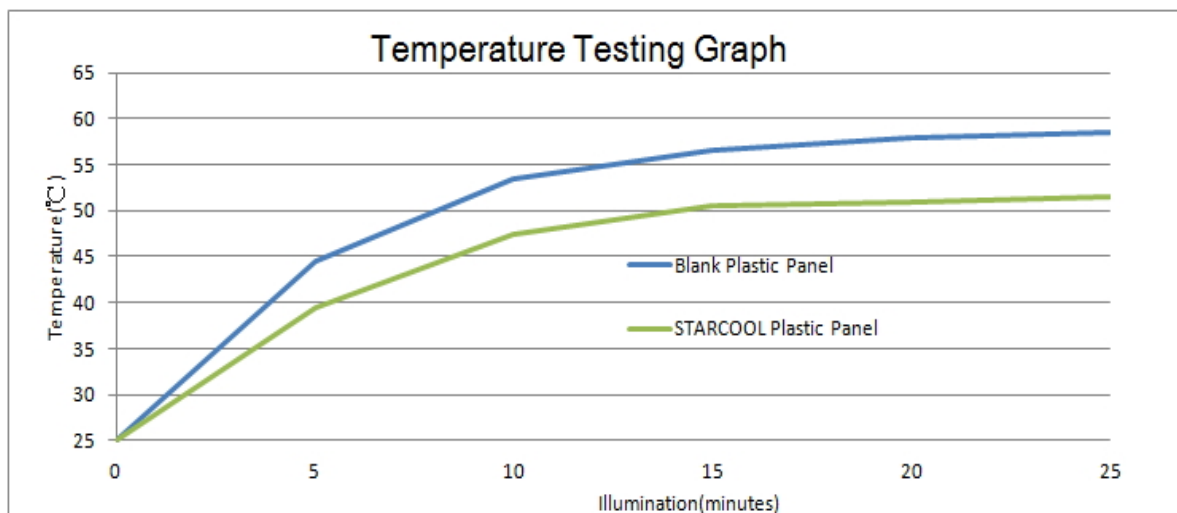
特點：透明度佳，可隨添加量調整隔熱效果

Composition: heat insulation material + resin (PC, Acrylic)

Characteristic: High transparency, with option to adjust the heat insulation effect based on dosage.

一般透明塑膠板只能阻隔 6~8% 的太陽熱能，但是 STARCOOL 隔熱板能阻隔 50% 以上。
陶瓷隔熱板效果可以降低溫度約 4~6°C。

Regular plastic panels only can block 6-8% of the IR heat from sunlight, but a similar panel using STARCOOL technology can block more than 50%! As a result, the room temperature using plastic panels with STARCOOL is 5°C cooler than standard.



*Test conditions:

- About 1-2 grams of STARCOOL additive was added per square meter of 3mm plastic panel.
- A 250W PHILIPS heat lamp was used to illuminate the plastic panels at room temperature (25°C).
- Results may vary between each case; independent analysis is required before use.

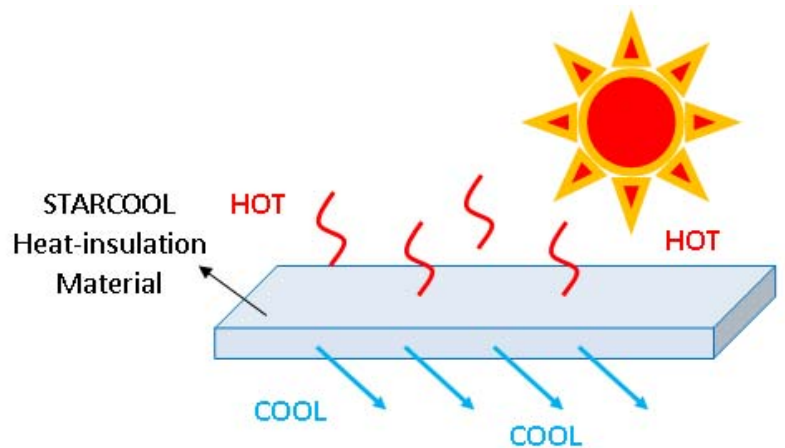
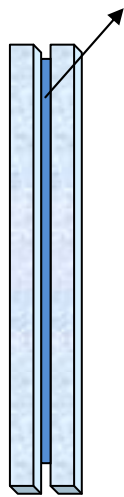
STARCOOL 隔熱膜

STARCOOL Heat insulation Film

STARCOOL PVC FILM



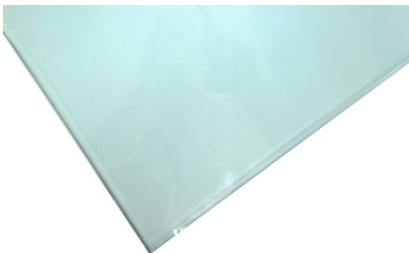
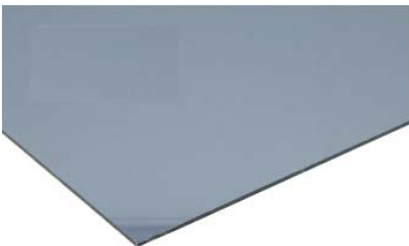
STARCOOL PVB FILM



STARCOOL 隔熱膜適合使用在多樣的應用上。

在壓合玻璃的部份，我們有藍色及灰色 STARCOOL PVB 隔熱膜選項，它提供了極佳的黏性，透光度，當然還有明顯的熱度阻隔。

在 DIY 家用市場，我們有 STARCOOL PVC 隔熱膜，同樣也可以達到高透光度及隔熱性。 STARCOOL PVC 隔熱膜是便利又最經濟使用到我們技術的產品，只要噴水然後貼上即可！



STARCOOL F series are plastic films for use in various applications. For the glass lamination process, we have the STARCOOL PVB film with blue and charcoal color options. It offers great adhesion, transparency, and of course significant thermal heat reduction.

For the DIY home market, we have STARCOOL PVC films which also offer excellent transparency with thermal heat reduction. STARCOOL PVC films are the easiest, most economical way to apply our technology; just spray water and attach!

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