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Nano-PT/FIR Silicon Film

Description: We utilize technologies of nano-particlization and dispersion to well disperse nano-scale platinum and far-infrared-emitting particles uniformly on to a silicon film. The film could release bio-infrared energy ($4\sim14~\mu m$, an electromagnetic wave that is close to what is released by human body) easily just under room temperature. The wave is able to resonate with human body, therefore, these products can effectively improve metabolism and general health of human body.

Function: Our products contain high active nano-scale platinum (diameter below 20nm) having larger specific surface area and resulting in higher reaction rate, it comes with excellent catalyst ability. Highly effective anti-oxidation ability and lower potential lead Nano-scale platinum to have well moisturization, The tiny parcels could release bio-infrared energy (4 \sim 14 µm, an electromagnetic wave that is close to what is released by human body) easily just under room temperature. The wave is able to resonate with human body, therefore, these products can effectively improve metabolism and general health of human body.

FIR(far-infrared) is defined magnetic wave as wave length ranging from 0.75 to $1000\mu m$, 4 to $14\mu m$ is most beneficial to human body among, called Bio-Infrared Energy having functions as listed below:

- 1. Naturing cell organizations, promoting blood cycling.
- 2. Accelerating nutrition and enzymes feeding.
- 3. Deodorizing, demoisturizing, heat gathering, thermal conditioning, antibacterial and immunity Enhancing.

In addition, FIR have similar property to light, strait direction, refraction, emission, and reflection. It could deeply affect human body. For example, heat gathering function mentioned is applied on medical therapy commonly. From statements above, It is recommended to prevent and rehabilitate disease like Rheumatism, arthritis, frozen shoulders, tendon strain, ligament sprains, neck and shoulder pain, and low back pain. Further, Bio-Infrared Energy has good penetrating effect imbedded in silicone film, resulting in long lasting sustainability.

Application: Suitable in health care, thermal condition, and medical products.

Specification:

*Length: 20 cm x Width: 20 cm x thickness: 2 mm

* Weight: 100 g

Testing report: As attached documents beneath.



The Silicone film made from these materials has a bio-infrared energy releasing rate of 94.9% tested by Chung-Shan Institute of Science and Technology Armaments Bureau.

報告編號 報告頁次 來文編號 Report No.: TOP-02 Pages: 1 Ref. No.: 收件日期 完成日期 試樣件數 Date of Acceptance: 971103 Date of Issue: 971128 No. of Pieces: 試樣名稱 Name of Sample: 奈米 Pt 複合遠紅外線粉矽膠片(灰黑色) 委託單位/地址 Name of Client / Address: 頂尖奈米科技股份有限公司/台北市大安區復興路一段 245 號 13 樓 (02)27553168

試驗項目 試驗結果 試驗方法 **Test Items Test Report** Test Methods 1.測試環境條件 紅外線放射率 Temp. : 20° C RH%: 60% 2.量測波長 $3\mu m - 12\mu m$ 3. 測量樣品加熱溫度 0.30 60.5℃ 4.量測儀器 FLIR-SC2000 5.規範 E (emissivity, $8.0 \mu m - 12.0 \mu m$) = 0.949根據 ASTM-E 1933

量測人員:

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審核人:

研究所 量測單位主管:

原物組技正何 又

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