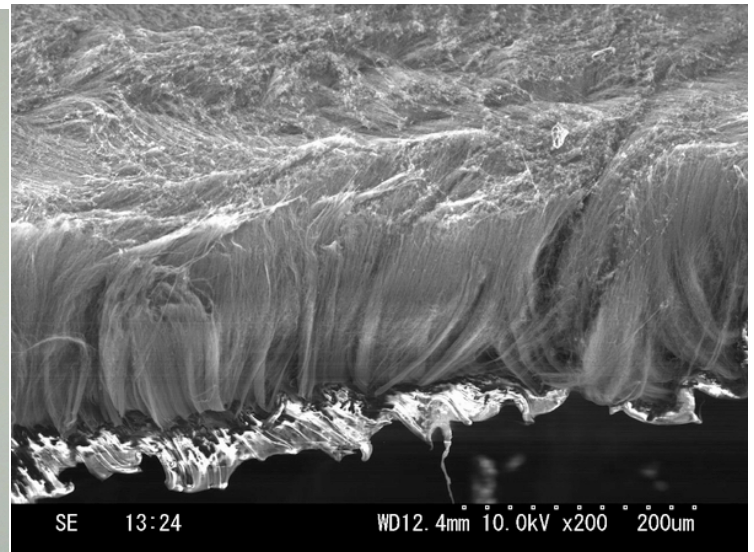


Aligned CNTs Array Transfer Sheet (resin, rubber, paper)

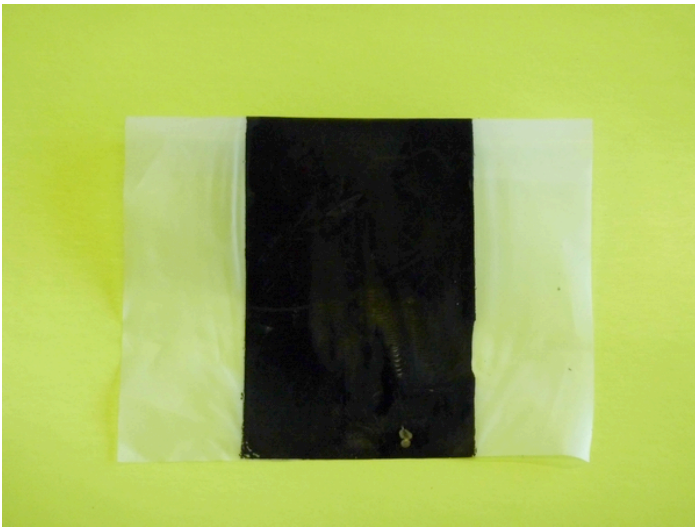
- Due to heat-resistance temperature, CNTs film can't be coated/grown on rubber-based or resin-based polymer surface. But, once vertically aligned CNTs array is created on organic heat-resistant substrate, by simple ways like hot pressing, we can transfer the vertically aligned CNTs array from substrate to resin film. Especially, our super long aligned CNTs array is featured by ease of transfer and can be used on the substrate of various polymer films.
- After CNTs is transferred, embed the front of CNTs of one end into resin or rubber surface, fix it with the front of other end and stem exposing on the surface of film like a brush. The exposed CNTs stem is very soft and can be bent by any angle, so there is very small contact resistance. An extremely tiny press can gain very good conduction embodying its unique surface resistance.
- CNTs's unique soft mechanical property, electric and thermal conductivity, electromagnetic wave absorption, high surface area and chemical resistance can be extended in various polymer films.
- Samples of aligned CNTs array for resin film, rubber sheet, paper and other substrates can be provided according to request.

Aligned CNTs Array/Polymer film



The aligned CNTs array for single-sheet polythene resin film. As there is ring-typed stripe on the surface of CNTs, the sticking function is a little weak, but it works well on the glossy surface like white board.

SEM of section of transferred CNTs on polythene resin film; keep vertical directionality



Transferred CNTs array on PTFE film

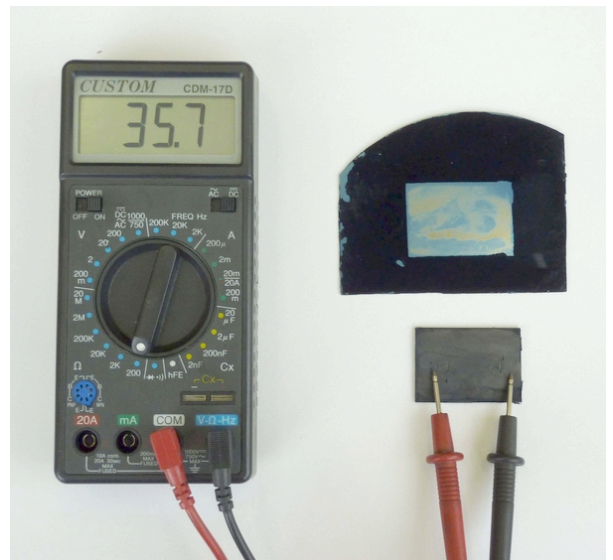
VACNTs/Rubber (vertically aligned CNTs array transferred to rubber sheet)

Vertically aligned CNTs is flexible for its softness. In the case of rubber sheet or film, it doesn't weaken the retractility of rubber and can still keep its electric and thermal conductivity and electromagnetic absorption. It is especially applicable to the TIM requiring the thermal conductivity vertical to surface.

Applicable to silicone rubber, fluorine resin rubber and other kinds of rubbers.



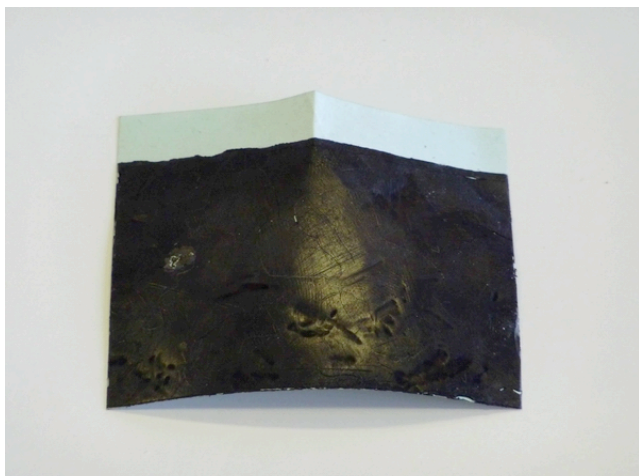
When aligned CNTs array is transferred to rubber film, it can keep the retractility, electric conductivity and structure of film.



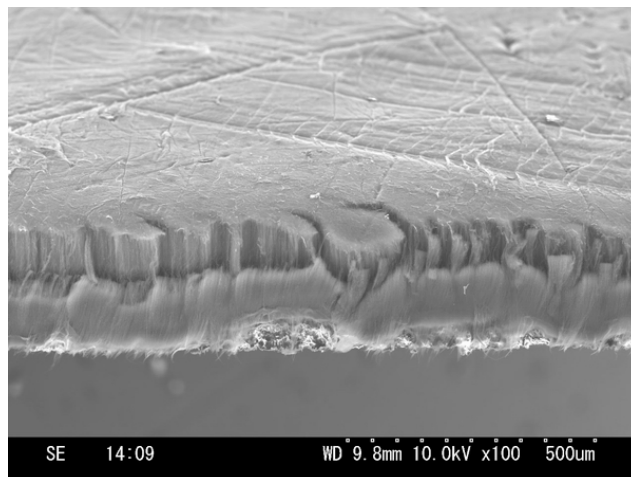
The CNTs conductive rubber sheet gained by transferring part of vertically aligned CNTs array film, which grows on silicon substrate (upper right), to fluorine resin rubber sheet (lower right). It is vertically aligned and has very good electric conductivity in inward direction of surface.

VACNTs/Paper(vertically aligned CNTs array transferred to paper)

Applicable to various types of papers to make it electrically conductive and high thermal resistance.



Aligned CNTs array film transferred to paper



SEM of section of Aligned CNTs array film transferred on paper