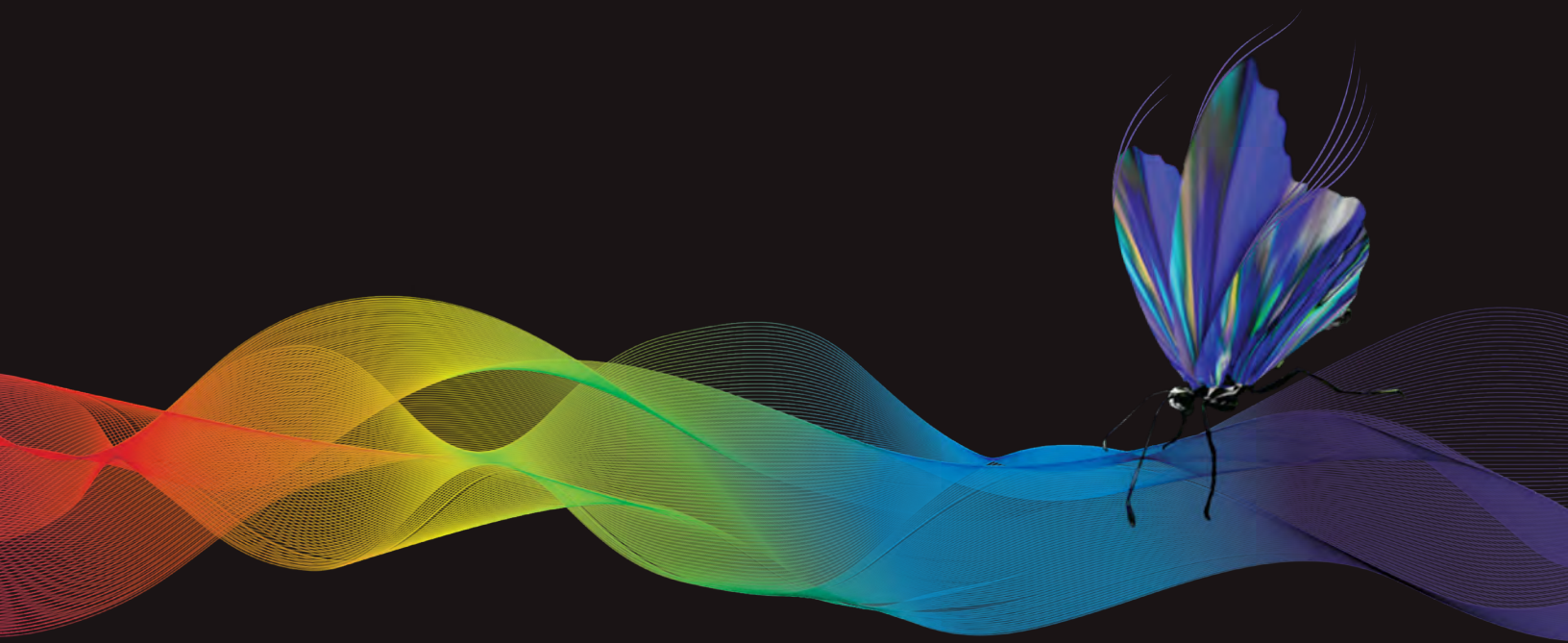


META[®]
Go Beyond.



NANOWEB[®]

Revolutionary transparent conductive film

Contact us for your free sample
metamaterial.com | sales@metamaterial.com

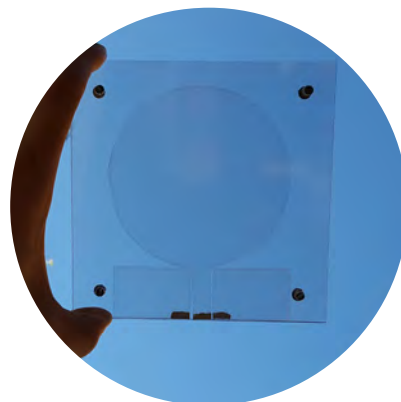
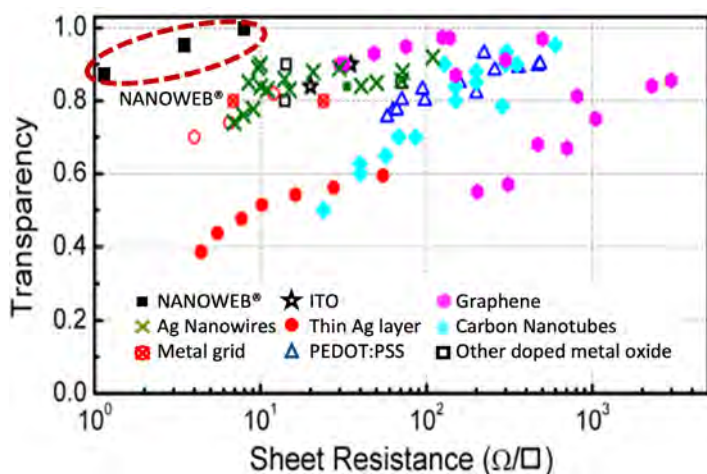
NANOWEB®

Revolutionary transparent conductive film

NANOWEB® is a transparent, conductive film that can be fabricated onto any glass or plastic surface. Made of an invisible, nano-structured metal mesh, NANOWEB® is an advanced functional film that delivers unmatched transparency, conductivity, and flexibility.

NANOWEB® is an extremely thin, transparent, metal mesh film that is both flexible and highly conductive. This unique combination of advanced material functionality enables exciting applications and innovations across a wide range of industries. It offers a flexible alternative to Indium Tin Oxide (ITO), Silver Nanowires (AgNW), graphene and carbon nanotubes, among other ITO-alternative technologies. Exceptional transparency is achieved through precise geometric arrangement of sub-micron metal wires, which are invisible to the human eye. As the transparency is dependent solely upon the nano-structured geometric spacing and sub-micron dimensions of the mesh, NANOWEB® can be manufactured from silver, aluminum, platinum, copper, and many other metals, to deliver a wide-range of specifications and capabilities, without significantly affecting visibility.

NANOWEB® is made using META's Rolling Mask Lithography (RML®). This proprietary process enables NANOWEB® to be produced for large-area products, devices, and films, on roll-to-roll production equipment. The RML method also allows to pattern Nanoweb's metal mesh in custom ways, in order to infuse additional functionalities, such as radio wave filtering. NANOWEB®, recognized by Printed Electronics Industry, won the IDTechEx "Best Manufacturing Technology" award in 2013.



Performance comparison for major Transparent conductive film technologies.
NANOWEB® shows superior transparency vs. sheet resistance.

OFF-THE-SHELF AVAILABLE DESIGNS

Name	Pitch (um)	Sheet Resistance (Ohm/sq)	Transparency (%)	Haze (%)
NANOWEB® 1	P25	2	93.5	7.0
NANOWEB® 2	P45	3.5	96	4.4
NANOWEB® 3	P90	7.5	98	2.5
NANOWEB® 4	P200	15	99	1.5

Contact us to receive our NANOWEB® technical white paper. Substrates available: Glass, PET, Zinc Selenide, Zinc Sulfide, Germanium, Sapphire.

BENEFITS



**HIGH TRANSPARENCY
(VISIBLE + IR)**



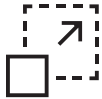
**FLEXIBLE
AND DURABLE**



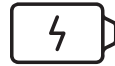
**COST
EFFECTIVE**



**HIGH
CONDUCTIVITY**



**LARGE SCALE SURFACE AREA
COVERAGE**



**LOW
VOLTAGE**

APPLICATIONS

As a highly conductive, functional metal mesh film, NANOWEB® offers incredible range of both passive and powered use-cases. High conductivity combined with superior transparency, with low haze and no tint, open exciting new applications for NANOWEB® to be applied directly to display screens, windows, windshields, visors, and goggles, without any obstruction of view.



Touch Screens



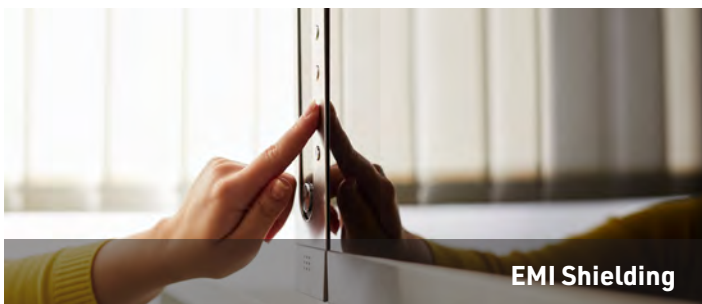
De-icing / De-fogging



Transparent 5G / 6G Antennas



RFID



EMI Shielding



Smart Glass and Solar

Meta Materials Inc. (META®)

Headquarters

1 Research Drive / Dartmouth /
Nova Scotia / Canada / B2Y 4M9

Tel: 1-902-482-5729

Email: sales@metamaterial.com

Web: metamaterial.com

CANADA | USA | UK | JAPAN | SWITZERLAND | GREECE

