



PNC Force Sensing Material

For next-generation measurement systems



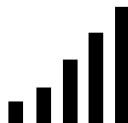
A versatile solution for your products

This innovative material leverages the unique properties of nanomaterials, exhibiting enhanced mechanical, electrical, and thermal properties compared to traditional force sensing materials.



Flexibility

Able to be processed in various shapes and sizes for specific requirements



High sensitivity

Developed for high resolution at low force measurements



Adaptability

Ideal for use in a wide range of applications from consumer products and robotics to medical devices



Durability

Engineered to withstand harsh conditions while maintaining performance integrity

Various readout methods

Resistance and/or capacitance can be used to interpret mechanical force into an electrical signal.

Overload protection

At very high loads, PNC material will saturate but not be destroyed by forces below 10 MPa.

Micrometer measurements

Individual steps of compression in micrometers made possible with NanoSen readout electronics.

Long-term stability

Even when subjected to long-term loads, PNC material still returns to its original shape.

Temperature resistance

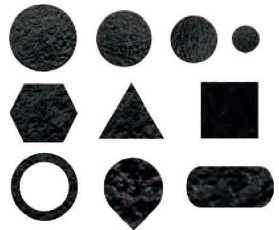
The base material is a medical-grade elastomer, able to withstand temperatures from -40 to 120°C.

Absolute values

In a compressed state, conductivity remains constant without the need of a null reference point.

Easy customization for product development

The PNC material can be cut into any shape using a plotter, scissors, or die. This allows for tailoring the sensor material to fit specific geometries and configurations.



WARNING! It is not permitted to cut the PNC material using a laser cutter or waterjet. This will result in damage of the material and potentially cause hazardous dust emissions.



Smart Sensor Materials and Solutions

PNC Force Sensing Material

Polymer nanocomposite (PNC) sensor material as an advanced type of sensor technology that combines polymers with nanomaterials to create a highly sensitive and adaptable product for measuring force.

Contents: One 45cm x 40cm sheet of PNC material



PNC-Kraftmessmaterial

Polymer-Nanokomposit (PNC) Sensormaterial ist eine fortschrittliche Art von Sensortechnologie, die Polymere mit Nanomaterialien kombiniert, um ein hochsensibles und anpassungsfähiges Produkt zur Messung von Kräften zu schaffen.

Inhalt: Eine 45cm x 40cm Matte des PNC Materials

Matériau de détection de force PNC

Le matériau de capteur en polymère nanocomposite (PNC) est un type avancé de technologie de capteur qui combine des polymères avec des nanomatériaux pour créer un produit très sensible et adaptable pour mesurer la force.

Contenu : Une feuille de matériau PNC de 45 cm x 40 cm

NanoSen GmbH
Technologie-Campus 1
09126 Chemnitz, DE
www.nanosen.de

Made in Germany



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