GNext XT PET 1 Technical data sheet

GRAPHENE COATED PET.

Description:

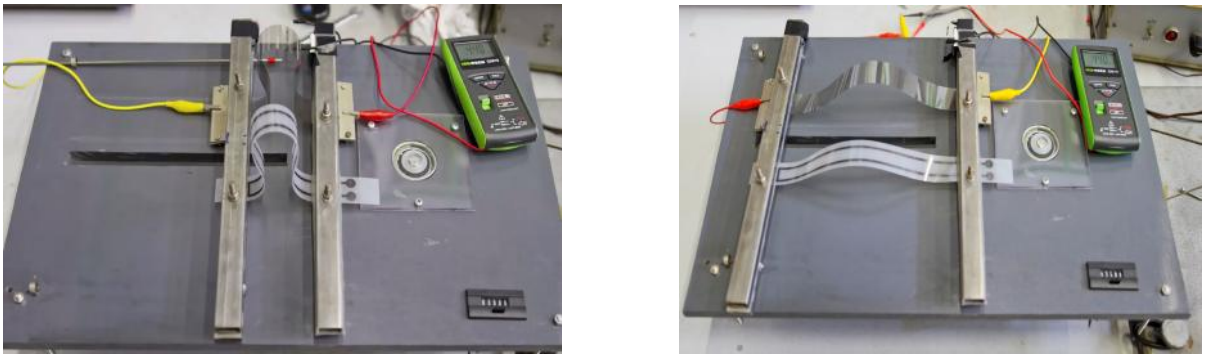
GNext XT PET 1 is a polyethylene terephthalate (PET) film coated with a thin film of graphene flakes. GNext, thanks to its flexible technology, is able to coat many different polymers with a pristine graphene. The graphene flakes are uniformly attached onto the polymer surface to form a pattern of 20 nm maximum thickness. This assures a good balance between transparency and sheet resistance.

GNext graphene coated PET is highly mechanical stable and can be bend, roll and scrunched up many times without appreciable decrease on performance. XT PET 1 can be used to wrap or coat different objects and making it conductive.

Due to the extremely low amount of coating material which is anyway carbon based, at the end of its life XT PET 1 is a fully recyclable as PET plastic.

GNext XT PET 1 Technical data sheet

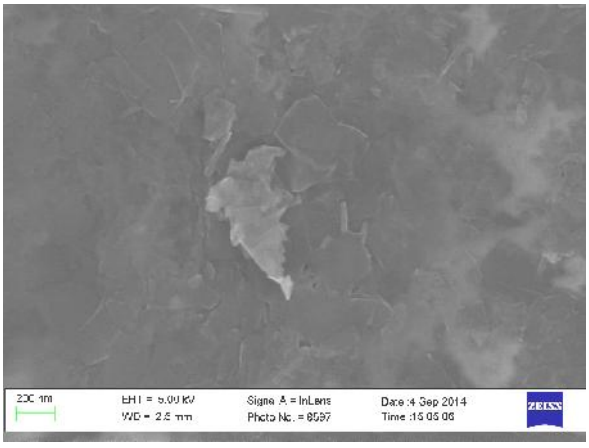
Our printed material remain stable for extremely long time, a proprietary fatigue bending test last for more than 50.000 cycle without any performance variation.



Fatigue test on graphene coated PET, sheet resistance measure before (left) and after (right) more than 50.000 cycles.

Typical features:

PET film thickness	12 & 100 μm	Micrometer
Graphene coating thickness	<20 nm	AFM
Sheet resistance (4 x 4 cm)	100-200 kΩ/sq	Resistance Meter
Total light transmission (550 nm)	70%	UV spectrometer
Graphene coating light transmission (550 nm)	85%	UV spectrometer
Coating hardness	2H-3H	ASTM D 3363 – 00



Scanning electronic microscopy on PET film coated with graphene flakes.

GNext XT PET 1 Technical data sheet

This data sheet briefly describes and gives typical data for some of the basic properties of GNext XT PET 1. It is emphasized that all data in this publication have been obtained from laboratory tests on representative samples. Thus, although the values are typical, they are for very general guidance and must not be used as a basis for specifications.

Sample should be stored dry and away from direct sources of heat. More detailed information and advice on individual products may be obtained from the Sales Contacts. Information contained in this publication, and otherwise supplied to users, are based on our general experience and are given in good faith, but we are unable to accept responsibility in respect of factors which are outside our knowledge or control.

Is the responsibility of the customer to ensure that the use complies with all relevant regulations. GNext grade should be use for research purpose.