GRAPHENE-T®

MANUFACTURED & SUPPLIED BY:

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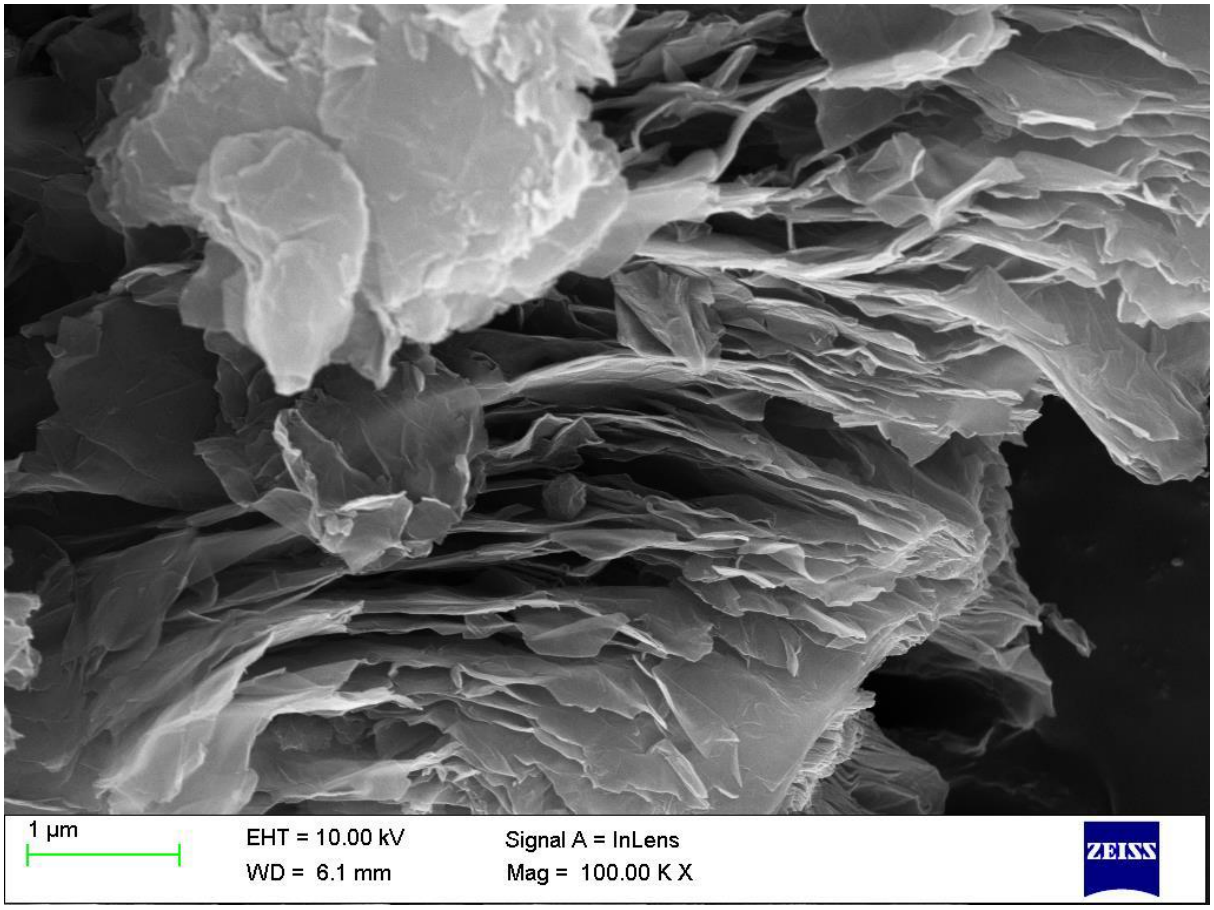
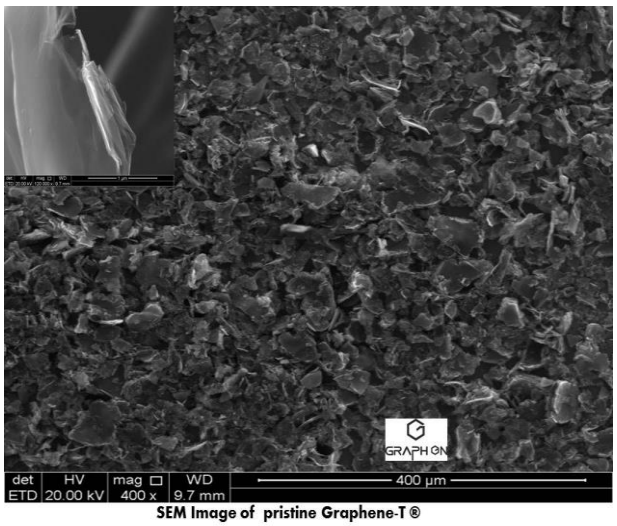
Graphene-T®



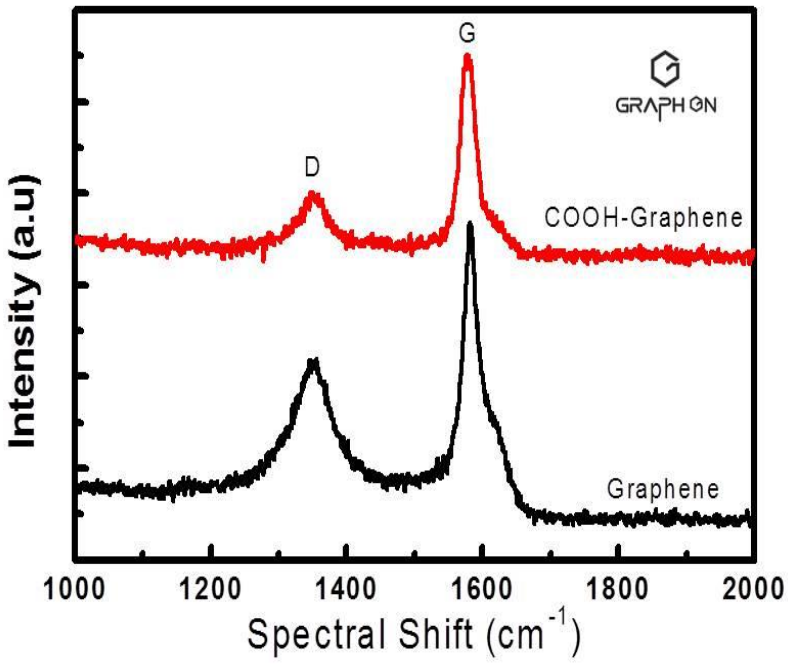
FESEM IMAGE GRAPHENE-T®

10-20 layred, 20nm thin,10 µ exfoliated sheet +98%Purity,Bulk density 0.45g/cc

Best for Battery Applications& Polymer reinforcement



SEM Image of pristine Graphene-T ®



Raman Spectra of pristine Graphene-T ®

Graphene-T® [Standard Graphene] is the Exfoliated graphene sheet of few layered containing elemental fractions of Carbon range as 96-99%. Chemical functional groups such as lactone, carbonyl and hydroxyl are naturally presence throughout the surfaces & edges making it compatible with the base matrices .These desired defects are acting as the linker ligand with the host materials resulting actual performance. Graphene-T® represents the standard form of graphene with the advantage of reactive desired defects & exclusively can be used for battery, super capacitor, reinforcement of polymers & coating applications.

Graphene-T® is also available in various grades based on the functional group presence, mainly Carboxyl [-COOH], Hydroxyl[-OH], Phosphate[-P04] & Amine[-NH2] group. Graphene-T® can be supplied in the form of stable dispersion in desired solvent & graphene mixed in various polymers [Master batch of graphene based polymeric nanocomposite]. Graphene mixed master batch polymers are available

upto 20% loading in thermoplastic namely, Polypropylene, Polycarbonate, LLDPE, Nylon etc.

Send us mail to our sales team. Our technical team will help in selecting the right product for your specific applications.

Parameters	Values at Graphene-T ®:
Thickness	8-10nm
Lateral Dimension	10µ
Layers	10-16
BET SURFACE AREA	108 m^2/g
Bulk density	0.45g/cc
Purity	>98%
Porosity over surfaces	06 nm
Atomic Oxygen Content	<2%
Atomic Carbon Content	96-99%

Advantages of Graphene-T ®:

Consistent quality

Compatible & easy mix with host

Originated as reactive & desired defects

No extra equipment to handle

Graphene-T® is few layered aggregates of sub-micron platelets powder form of graphene measuring a diameter of 10-20 microns with high aspect ratio. Optimally, when Graphene-T® mixes in minute quantity with host matrix such as polymer, metals, it improves the Mechanical, Thermal & Electrical properties without significant increase in the finished products cost.

APPLICATION AREA OF Graphene-T ®

Graphene-T ® improves the mechanical performance, thermal conductivity, electrical conductivity, and permeation barrier properties of a range of composites and formulations. In Graphene-T®, the graphene layers are entirely disassociated ensuring good dispersion and ease of handling while providing the full performance advantages of graphene. Graphene-T ® has been successfully implemented and is recommended for following areas. Although the main users are: Academic research centres, Industries covering-Composite /Structural materials, Paint &Coating, Energy, Biomedical, Electronics!

MAIN APPLICATION AREA OF Graphene-T ® and Graphene-® SUPER in the Industries

The Graphene-T ® is used in the production of Lead-acid batteries

The unique innovative technology of advanced lead batteries based on Graphene-T®, offers significant advancements in battery performance that were unreachable in conventional PbA batteries before:

- Considerably higher specific energy (for both sealed and flooded battery design);
- Prolonged calendar lifetime when operating on float charge;
- Increased cycle lifetime, purely comparable to Li-ion electrochemistry;
- Significantly improved PSoC and charge acceptance performance;
- Higher specific power;
- Increased deep cycle performance with minor deterioration of negative plates;

The Technology which use Graphene-T ® can be deployed at lead battery manufacturing plants, it doesn't need any further re-equipment of the standard production lines therefore it is cost effective.

Our goal is to commercialize new lead carbon technology by working in joined efforts with other battery manufacturers worldwide in order to bring the innovation to the emerging energy storage market.