GRAPHENE OXIDE DISPERSION LIQUID

Product Description

MstnLand's graphene oxide dispersion liquid is the introduction of oxygen-containing functional groups, such as hydroxyl, carboxyl, epoxy etc., on a single sheet of graphene. Therefore, it is more active than graphene and is easy to graft modification. It can be remixed with composite materials in situ, thus giving the composite materials conductive, thermal, strengthening, flame retardant, antibacterial, antibacterial etc. functions, and it has good hydrophilicity. After reduction, oxygen-containing functional groups can be removed, which is an important precursor of graphene.

Different concentrations of graphene oxide dispersion liquid

Technical specifications

Item	Parameter
Content ratio	> 96%
Layers	< 5
Dispersant	Deionized water, ethanol, NMP and so on
Colour	black
PH Level	5 ~ 7
Dispersion Concentration	0.5 ~ 10 mg/ml
Single-Layer Ratio	> 98%
Thickness	0.6 ~ 1.0 nm
Lamellar Diameter	0.5-5 um
Analysis and testing	Infrared, XPS, Raman, XRD, TGA, SEM, TEM
Concentration	0.5mg/mL, 1mg/mL, 2mg/mL, 5mg/mL, 10mg/mL
Packaging	50ml/bottle, 100ml/bottle, 250ml/bottle, 500ml/bottle, 1000ml/bottle

Product advantages

- Dispersants are optional (water, ethanol, NMP, etc.)
- Compared with GO, reduced GO largely repaired the defects introduced by the oxidation process, and the electrical conductivity was significantly improved.
- The powder of reduced GO is treated by special process, and the powder remains fluffy with high specific surface area.
- Compared with conventional graphene, reduced GO still retains some oxygen-containing functional groups, and is significantly better than GO in terms of stability. As an adsorption material, it can adsorb heavy metals and organic dyes with very obvious effect.
- It has good dispersion stability in water and most polar organic solvents.
- Good wettability and surface activity, can be stripped by small molecules or polymer intercalation.
- It can improve the thermal, electrical, mechanical and other comprehensive properties of materials.

Applicable fields

- Composite material field: graphene oxide has excellent mechanical capacity, good thermal conductivity and large specific surface area, which can be applied to rubber, plastic, resin, fiber and other polymer composite material field;

- Biomedical field: Due to its high specific surface area and wide range of conjugate structure, GO has good application value in drug loading, especially in the aspect of anticancer drug carrier. After technical treatment, GO can be supplemented with non-water-soluble anticancer drugs.
- Photocatalytic field: graphene oxide has good adsorption performance. Together with nanomaterials, it can prepare catalytic materials with better performance and higher catalytic efficiency, which can be applied to the photocatalytic industry to further improve the degradation efficiency of pollutants;
- Analysis and detection field: The application of GO in PCR technology can significantly improve the specificity, sensitivity and amplification yield of PCR, eliminate primer dimers formed in amplification, and have a wide optimization range, which can be widely applied to DNA templates of various concentrations and complexity;
- Field of corrosion protection: Like graphene, graphene oxide has excellent anticorrosive properties, but it also has more active sites than graphene, which is easier to modify and can be well dispersed in coatings;
- Field of electric conduction: although the conjugate network is damaged in the oxidation process, graphene oxide has certain insulation properties, but after reduction treatment, part of the conductivity can be recovered, which can meet the requirements of anti-corrosion coatings on conductivity, reduce or replace the use of metal filler;
- Field of heat conduction: High thermal conductivity and large specific surface area lay the foundation for graphene oxide as a thermal conductivity material. Meanwhile, its active site improves its serviceability. Stable conjugate structure enables it to work at high temperature and prolongs the service life of the product.

Disposal and Storage

Operators should wear appropriate protective clothing and gloves, avoid direct contact with skin, and immediately rinse with plenty of water once entering eyes. Store tightly in a cool, ventilated and dry environment. Use as soon as possible after unpacking. The recommended storage temperature is from 5 to 35°C. Keep away from tinder and heat source, and store separately with strong reducing agent and flammable substance.