**TECHNICAL DATA SHEET**

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**Product Name: Dispersion of Few-Layer Graphene in Industrial Oil 2DD-OL**

**Product Description:** 2DD-OL is a dispersion of few-layer graphene in industrial oil, containing graphene particles in the form of stacks consisting mainly of 3–20 elemental graphene sheets. The product is manufactured using a patented graphite exfoliation method.

**Technical parameters:**

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| --- | --- | --- |
| **Parameter** | **Unit** | **Value** |
| **Average lateral particle size** | (μm) | 10–30 |
| **Average number of graphene layers per particle** | (pcs) | 10 |
| **Color** | - | dark gray to black |
| **Dispersion medium** | - | Oil |
| **Graphene concentration** | (wt. %) | 3 |
| **pH** | - | 6,8 – 7,2 |
| **Carbon content in graphene** | (%) | ≥ 98 |
| **Specific surface area** | (m2/g) | > 25 |

**Applications:** The product is designed for the modification of organic and organosilicon compounds, as well as various resins, including epoxy, phenolic, and novolac resins. The dispersion acts as an activator of the matrix's mechanical properties, enhancing its thermal and electrical conductivity, impact strength, and resistance to aggressive environments. It can be used, for example, in composite materials, powder metallurgy, and more.

By agreement with the customer, this dispersion can be produced using any type of oil, including synthetic, semi-synthetic, and mineral oils. The dispersion can also be further modified with other required substances.