

CarboDis

Water-based CNT Dispersion

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CarboDis are extra-high-grade, dustfree dispersions of carbon nanotubes of graduated concentrations in water for creating specific mechanical and electrical properties in an end-product.

Products of the CarboDis series are dust-free, simply dosed and stable dispersions of carbon nanotubes. They can be used to create specific electrical and mechanical properties in an end-product. The special dispersion processes and the resulting high quality of the dispersions mean that small amounts are sufficient to achieve an optimal effect. Different product variants open up a wide field of applications, and can be worked into all water based and water-compatible systems.

Benefits

The dispersions of the CarboDis product series give the user an optimal basis for successfully working carbon nanotubes (CNTs) in their material. CarboDis is characterized by the following benefits:

- ready dispersed CNTs, without agglomerates,
- uncomplicated, safe handling through water-bound nanotubes,
- highly stable dispersion through suitable additives,
- ionogeneity matched to the range of use.

Properties

All dispersions come to standard with a CNT content of 1 wt.% and 2 wt.%. Dispersions with up to 4 wt.% CNTs can be produced for custom requirements.

CNTs are optimally dispersed and stabilized in a multi-stage process developed inhouse by FutureCarbon. This enables us to produce dispersions with especially low viscosity of less than 100 mPa·s.

The stability of CarboDis dispersions is achieved by different additives. A selection of types ensures compatibility of the dispersion with very different applications:

- CarboDis TN with electrically neutral surfactant,
- CarboDis TA with anionic surfactant.

CarboDis can be worked into all water based or water-compatible systems to create specific electrical or mechanical properties in an end-product.

Industries and Applications

CarboDis has already proved successful in the following fields of application:

- adhesives,
- coatings,
- surface finishes,
- sealants,
- lacquers,
- ceramic glazes,
- building materials.

Only small quantities of CarboDis are needed to demonstrate its positive effect. It can also be used as an additive in the manufacture of antistatic plastic flooring and coatings. This is an effective safeguard against electrostatic discharge – a means of improving safety.

In addition to improving electrical properties, CarboDis can also be used to enhance mechanical parameters such as resistance to abrasion.