

# NANOPOX® F 700

NANOPOX® F 700 is a high performance, versatile, nanosilica reinforced epoxy resin for the use in fibre reinforced composites. It is suitable for all processes, prepregs as well as filament winding or infusion. The silica phase consists of surface-modified synthetic SiO<sub>2</sub> nanospheres of very small size (average diameter of 20 nm) with a narrow particle size distribution (maximum diameter 50 nm). Despite the high SiO<sub>2</sub> content of 40 wt%, NANOPOX® F 700 has a comparatively low viscosity due to the agglomerate-free colloidal dispersion of the nanoparticles in the resin.

## Technical data (no specification)

Property	Units	Typical Values
Base resin		epoxidized novolac
Appearance		opaque solid
SiO <sub>2</sub> -content	[wt%]	40
Density @ 20 °C	[g/ml]	1.4
Viscosity @ 50 °C	[mPas]	20 000
Epoxy equivalent weight	[g/eq]	310
Shelf life	[months]	6*

\*if stored in the original unopened container

## Processing Instructions

NANOPOX® F 700 can be used as any other novolac epoxy resin. However, the colloidal silica in NANOPOX® products tends to agglomerate if the stabilisation is affected by inappropriate formulation components like hydrocarbon solvents (e.g. xylene). Therefore the compatibility between NANOPOX® F 700 and all other formulation components should be tested separately before starting formulation development.

## Handling and Storage

NANOPOX® F 700 should be handled in accordance with good industrial practice. Detailed information is provided in the Material Safety Data Sheet.

Keep container(s) tightly closed when not in use!

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