

NANOCRYL® A 220

NANOCRYL® A 220 is a versatile dispersion of colloidal silica in a trifunctional acrylate monomer for the use in adhesive applications. The silica phase consists of surface-modified, synthetic SiO₂-spheres of very small size (Ø 20 nm) and narrow particle size distribution.

Despite the high SiO₂-content of 50 wt%, NANOCRYL® A 220 is highly transparent, low viscous and shows no sedimentation due to the agglomerate-free dispersion of the nanoparticles in the acrylate.

Technical data (no specification)

Property	Units	Typical Values
Base acrylate		Trimethylolpropane triacrylat (TMPTA)
Appearance		clear, slightly yellow liquid
SiO ₂ -content	[wt%]	~ 50
Density @ 20 °C	[g/ml]	~ 1.3
Viscosity @ 25 °C	[mPas]	~ 2000
Shelf life	[months]	6*

*if stored in the original unopened container

Processing Instructions

NANOCRYL® A 220 can be used as any common UV-curable acrylate. However, the compatibility between NANOCRYL® A 220 and all other components should be tested separately before starting formulation development.

The colloidal silica in NANOCRYL® products tends to agglomerate if the stabilisation is affected by inappropriate formulation components like hydrocarbon solvents (e. g. xylene) or certain performance additives (e. g. several silicones or amines).

Registration status

The ingredients of NANOCRYL® A 220 are listed in the following chemical inventories:

EINECS/ELINCS, TSCA, NDSL, ENCS, TCCL, PICCS, IECSC, TCSI

Further information is available on request.

Handling and Storage

NANOCRYL® A 220 should be handled in accordance with good industrial practice. Detailed information is provided in the Material Safety Data Sheet.

NANOCRYL® A 220 is hygroscopic. Therefore keep container tightly closed when not in use! The product may polymerise under improper storage conditions. Store below 30 °C.

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