

TECHNICAL DATA SHEET

Nanum® Aqueous Magnetic Nanoparticles Dispersion



NA070100

Description

Nanum® aqueous magnetic nanoparticles dispersion is a water-based dispersion produced with our special metal oxide nanoparticles. It features prolonged stability, extended shelf life and low sedimentation rate due to its functionalized nanoparticles, which is treated with strong chemical bonds.

Application

NA070100 is a dispersion for application in MICR Ink formulations in thermal and/or piezoelectric printers, with excellent magnetic signal, being compatible with a wide variety of magnetic readers. Furthermore, it can be used to produce inks for printing banknotes and other documents with paper currency or similar.



Properties:

Product name:	Nanum Aqueous Magnetic Nanoparticles Dispersion
Solvent:	Water
Physical form:	Black liquid
Average Particle size (nm):	40.0 – 60.0
Viscosity* (cP):	200.0 – 400.0
pH:	6.0 – 7.0
Conductivity (mS/cm):	1.87 – 1.95
Solid content (% w/w):	49 – 51



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Shelf life

NA070100 should be stored in a cool dry place with optimal temperature range for storage between 41 °F – 95 °F (5°C – 35 °C). This product has a shelf life of 2 years from the manufacture date when stored under the mentioned conditions. Exposing the ink to higher or lower temperatures may cause loss of its properties and/or printing performance.

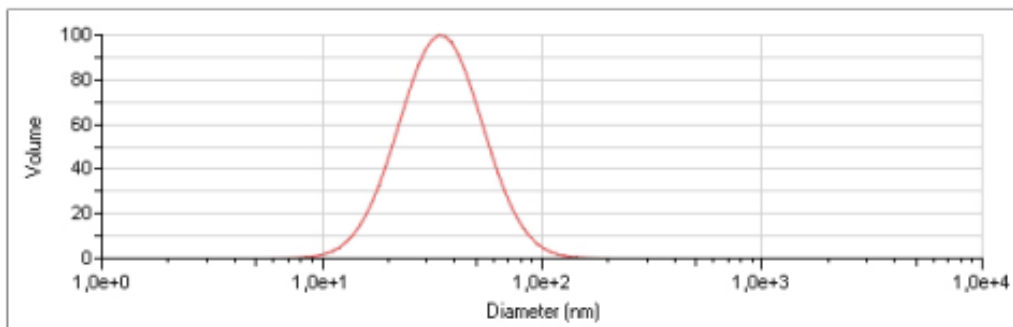
Operating Conditions

Temperature: 18 °C – 35 °C (64°F - 95° F)

Humidity: 20 – 60 %

Dispersion Volume

Custom volume upon client request.



Particle size average distribution

Notes

This Nanum Dispersion is produced according with a certified ISO 9001:2015 Quality Management System and NANUM warrants all reported specifications. However, satisfactory results from the dispersion use are related to individual formulation and operational procedures. Users are responsible for testing and to determine if our product will perform as expected throughout the entire printing, post printing, processing, and end-of-life.



* Brookfield Ametek DV-1 Viscometer - Spindle ULA (Frequency = 1 revolution per minute (rpm))

