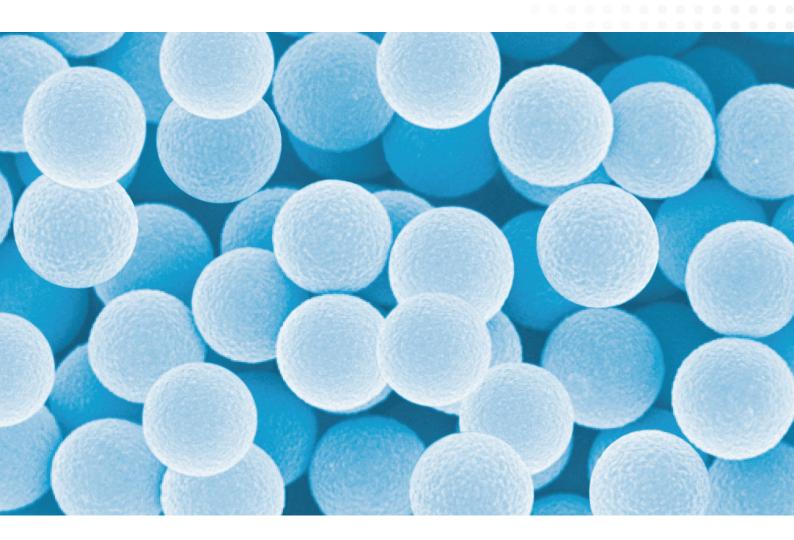
## MYLAN GROUP

## Formulating a Greener World®



POLYMERIC NANO PARTICLES





## Formulating a Greener World®



## PolyNP® - POLYMERIC NANO PARTICLES

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Mylan Group offers a range of patented Polymeric Nano Particles, which are dispersed in water and/or ethanol solutions under the trade name PolyNP®. These products have been specially synthesized for use in the production of eco-friendly printing inks for continuous, thermal and piezoelectric inkjet printers. PolyNP® can also be used in water based inks for flexography and gravure. Printing inks comprising Poly NP® provide sharp printed images with vivid colors and properties such fast dry, odorless and improved adhesion on a wide range of non-porous substrates such as metal, glass, and plastics.

Mylan's PolyNP® products are tailored for difficult-to-formulate industrial inks, in particular, where the high performance of solvent inks are desired for thermal inkjet (TIJ) systems such as HP™ and Lexmark™. TIJ-based inks formulated with Poly NP® do not result in material compatibility, nozzle clogging or kogation problems with TIJ printheads, while providing adhesion and good film formation on a wide range of non-porous substrates typically encountered in industrial printing environments.

Mylan's Poly NP® product line can also be employed in piezo inkjet (PZT) systems to formulate light-fast and water-fast commercial inks with vivid colors as higher viscosity is required in PZT printheads such as Spectra™, Xaar™, Konica Minolta™, Panasonic™, and Toshiba TEC™.

The innovative PolyNP® line of products allows water-based inks to be printed on a wide range of substrates and applications typically reserved for industrial solvent inks. Thus, high performance inks can be formulated with the Poly NP® line of products to be eco-friendly and to lower the carbon footprint in response to stricter environmental regulations and ecoconscious consumers.

Product Names	Particle Size (nm)	Polydispersity Index	Viscosity (cPs)	Colors	Applications
Poly <b>NP</b> ® 100N (20%)	100 <u>+</u> 10	0.05 - 0.07	12	White	Available in customizable range of particle sizes from 100 to 200 nm to provide formulation latitude while enhancing the adhesion of pigmented inkjet formulation onto non-porous substrates.
Poly <b>NP</b> ® 100X (20%)	100 <u>+</u> 10	0.05 - 0.07	12	White	
Poly <b>NP</b> ® 150N (20%)	150 <u>+</u> 10	0.05 - 0.07	12	White	
Poly <b>NP</b> ® 150X (20%)	150 <u>+</u> 10	0.05 - 0.07	12	White	
Poly <b>NP</b> ® 200N (20%)	200 <u>+</u> 10	0.05 - 0.07	12	White	
Poly <b>NP</b> ® 200X (20%)	200 <u>+</u> 10	0.05 - 0.07	12	White	
Poly <b>NP</b> ® 100K (20%)	100 <u>+</u> 10	0.05 - 0.07	12	Black	Available in customizable range of solvent dyes, nano particles for spot color inkjet applications.
Poly <b>NP</b> ® 100R (20%)	100 <u>+</u> 10	0.05 - 0.07	12	Red	
Poly <b>NP</b> ® 100B (20%)	100 <u>+</u> 10	0.05 - 0.07	12	Blue	
Poly <b>NP</b> ® 100S (20%)	100 <u>+</u> 10	0.05 - 0.07	12	Light Green	NIR nano particles for security inks

