



Colloidal Performance Materials

NYACOL® AL20-EG

Al₂O₃ in Ethylene Glycol

Nyacol® AL20-EG is a colloidal dispersion of high purity pseudo-boehmite alumina dispersed in ethylene glycol.

Figure 1 shows the typical particle size and particle size distribution using the Malvern Zetasizer instrument. The typical concentration is 20% as aluminum oxide hydroxide or 16% Al₂O₃.

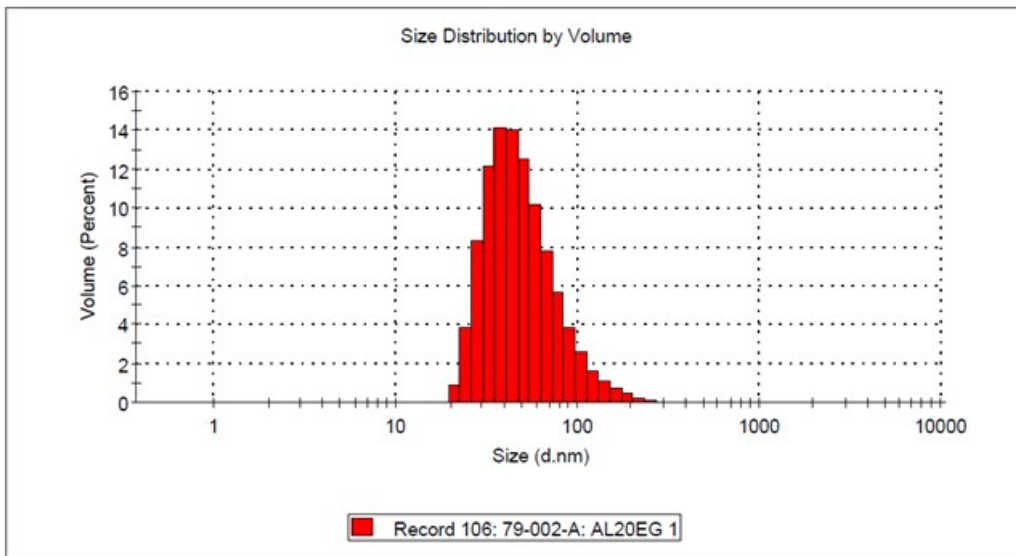
Nyacol® AL20-EG has been designed to be used in PET synthesis or as a coating additive. The solid phase refractive index of the Al₂O₃ particles is 1.65, which is very close to PET at 1.63. AL20-EG is expected to be a highly transparent antiblocking additive in PET film if well dispersed. In PET synthesis, the product is diluted with ethylene glycol to 1-2% solids and is added in the front end of the process, similar to other antiblock additives. Typical use levels are 1000-2000 ppm solids basis, but do depend on the film thickness. Consult Nyacol Technical Service to discuss addition point options.

In paints and coatings, the pseudo-boehmite particles can be used to control the coefficient of friction and film blocking. In ink receptive coatings, the alumina will react with anionic dyes to improve printing quality.

TYPICAL PROPERTIES

% Al ₂ O ₃ :	16
Particle size, nm:	50 - 100
% H ₂ O:	<3 (K-F)
Viscosity:	50 cps
Appearance:	White
Carrier:	Ethylene glycol

Figure 1 – Typical Particle Size Distribution, Malvern



TO ORDER MATERIAL OR FOR INFORMATION

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