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P300PSA-001

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Nanosperse P300PSA nanocomposites are designed to boost the performance of **pressure sensitive adhesives**. Pressure sensitive adhesives suffer from a fundamental problem; it is difficult to achieve high tack and high shear simultaneously. Nanosperse P300PSA's are designed to improve the shear and SAFT values of PSA's without compromising the peel and tack values.

Nanotechnology can boost the shear performance without damaging the peel adhesion and tack because the nanoparticles alter the creep compliance at a concentration low enough not to disrupt the surface contact.

Unlike many performance boosters, Nanosperse nanocomposites cannot be used at low concentrations. The recommended ratio's are normally greater than 50%. This is necessary in order to stabilize the nano-phase.

Nanosperse P300PSA is based on based on acrylic adhesive technology but can be modified to include rubberbased and silicone PSA technology.

Percent Solids = 40%

Viscosity = adjusted to use.

Critical property data for Nanosperse P300PSA will vary depending on the starting material but significant performance improvements to shear and SAFT values can be expected:

Peel Adhesion (20 min. dwell on Stainless Steel) = - 25% to +25% (N/in.)

Peel Adhesion (24 hr. dwell on Stainless Steel) = - 25% to + 25% (N/in.)

Loop Tack (Stainless Steel) = 0 to +50% (N)

Shear (1"x1"; Stainless Steel) = +100 to +1000% (hours)

SAFT (1" x 1"; Stainless Steel) > 100% temperature increase (more than double).