



## CLARIFYING AGENT FOR POLYPROPYLENE

Millad<sup>®</sup> NX8000 is a new-to-the-world chemistry that significantly expands the performance of polypropylene clarification. Millad NX8000 allows polypropylene to approach the look of high clarity plastics like polystyrene and polycarbonate.

Millad NX8000 can be compounded in PP using the standard methods and additive packages currently used for other clarifying agents. As with Milliken's Third Generation technology (Millad 3988i), Millad NX8000 must completely dissolve in the resin to achieve optimum clarity. Millad NX8000 is designed to melt at a lower temperature than Millad 3988i, which allows for easier dissolving during compounding.

### Formulation Recommendations

Additive	Type Conc. (ppm)	Purpose	Chemical Type
Millad NX8000	4000	High Clarity	Proprietary
Primary Anti-Oxidant	500-1500	Resin Stabilization	Hindered phenolic
Secondary Anti-Oxidant	500-1500	Resin Stabilization	Phosphites
Acid Neutralizer	800-1000	Neutralize catalyst residue	Calcium Stearate
Anti-stat or Slip agent	0-800	Processing Aid	Glycerol monostearate

\*For specific formulation questions, please contact your Milliken representative.

### Suggested Evaluations

To explore the potential of Millad NX8000, the following evaluations are suggested. The results noted for each study are representative of Milliken's initial studies. These should be verified in each resin and process.

Suggested Experiment	Expected Results
Haze vs. Part Thickness	50% haze reduction vs. Millad 3988i in each part thickness
Haze vs. Melt-Flow	Haze reduction vs. Millad 3988i is independent of melt-flow
Haze vs. Molding Temperature	Haze results less dependent on molding temperature vs. Millad 3988i
Haze vs. Resin Type	50% haze reduction vs. Millad 3988i in both RCPs and HPs
Nucleation	Polymer T <sub>C</sub> 2-3°C higher than Millad 3988i

### Other Notes

Millad NX8000 is incompatible with other sorbitol acetal clarifying agents. The appearance of white specks or gels in molded parts indicates that higher compounding or molding temperatures are required to completely dissolve the clarifier.

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