

Clarifying Agent Masterbatch for PP (NU-510)

Introduction

High performance clarifying agent masterbatch, NU-510 enhances the clarity and reduces haze of polypropylene through the nucleation of the polymer.

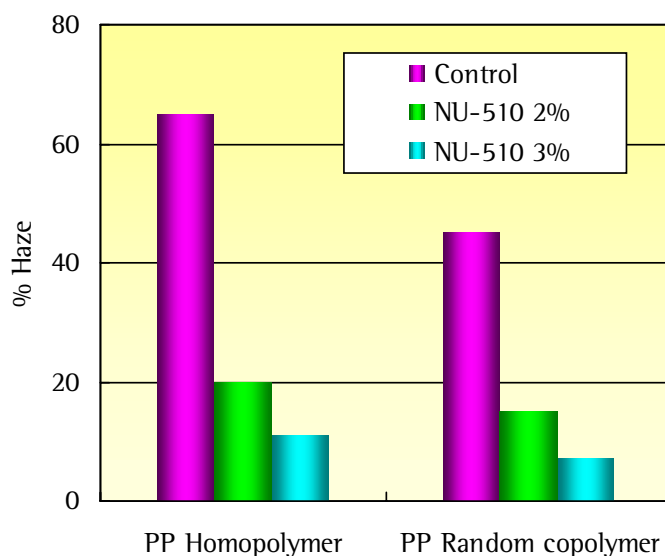
It performs as a nucleating agent, by creating a large number of very small size spherulites (< 1 micron) during the cooling of the polypropylene melt. The small spherulites lead to the polypropylene that has less opacity and high clarity.

Clarified PP offers an excellent combination of properties - toughness, flexibility, rigidity, moisture barrier, chemical resistance, heat resistance, and suitability for food contact.

Product Benefits

- Make outstanding clarity, gloss and surface smoothness
- Increase the stiffness and heat deflection temperature
- Approved for food contact to use all around the world
- Improve productivity during processing due to faster cycle time

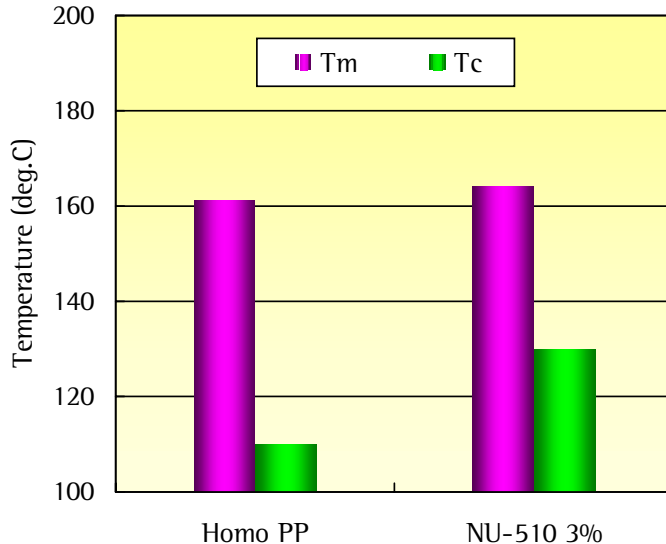
Outstanding clarity/Haze reduction



Use of clarifying masterbatch, NU-510, provides enhanced clarity.

Figure illustrates the typical haze reductions in injection molded plaques of PP homo-polymer and random copolymer containing NU-510.

Improve productivity / Reduce cycle time



NU-510 provides improved nucleation performance.

It increases crystallization temperature dramatically at which the polymer melt begins to crystallize during cooling.

It also provides to increase the overall rate of crystallization. As a result, shorter cooling cycles can often be used in injection molding, enabling shorter molding cycles and a significant improvement in molding productivity.

Applications

- Food storage containers
- Protective packaging (CD, Toys, Over-caps, Stationary, etc.)
- Thermoformed parts (Disposable cups, House wares)
- Extruded PP sheets

Composition

- Content of Additive: 10 wt% of high performance SORBITOL derivatives
- Carrier Resins: PP homo-polymer or random copolymer, terpolymer

Recommended Dosage Rate

- Injection and Blow moldings, Extruded sheets : Up to 3 wt%
- Optimum concentration (2 ~ 3 wt%)

Because processability and quality of applications are depended on processing conditions (temperature, pressure, speed, etc.) and applied resins, the optimum dosage rate must be determined by pre-test.