

CLARIFYING AGENT-MDBS 3940



Introduction

1,3:2,4-Di-P-Methylbenzylidene Sorbitol (MDBS 3940) is the 2nd Generation with improved quality and nearly the same as 1,3:2,4-Bis(3,4-Dimethylbenzylideno) Sorbitol. Clarifying Agent MDBS 3940 is a high performance sorbitol based clarifying agent that reduces haze and enhances the clarity of polypropylene through nucleation of the polymer. This also leads to enhanced stiffness of the molded part and to shorter cycle time during the molding process. It promotes the resin to crystallise by providing crystal nucleus and makes the structure of the crystal grain fine, thus improving the products rigidity, heat distortion temperature, dimension stability, transparency and luster.

Applications

- 1 MDBS 3940 is used for producing high clarity polypropylene.
- 2 MDBS 3940 could be blended with polypropylene powder through the dry mixing or the master batch and it gives high transparency and improves mechanical properties, heat resistance.
- 3 These additives are also used in resins to provide improved physical properties.
- 4 It is a clear nucleating agent suitable for medical PP as an injector. It is also suitable for wide span products (eg storage containers, CD / DVD cases, jewel cartons and food containers, etc.), blow molding, film or sheet extrusion process.

Benefits

- 1 Faster molding cycles
- 2 increased clarity and lower haze in polyolefins
- 3 Improved gloss and surface smoothness
- 4 Increased flexural modulus
- 5 Increased heat distortion temperature
- 6 Non-toxic/non-hazardous
- 7 reduce manufacturing costs

Clarifying agents are organic in nature, they melt during normal processing and thus become completely and evenly distributed in the resin. This melting factor is a significant advantage over inorganic nucleators, which do not melt and are thus much more difficult to disperse. The overall effect is that the clarifying additives provide superior aesthetics and uniform property enhancement.

Dosage-

It can be added directly to polyolefins. Powder can also be prepared as 2.5 ~ 5% masterbatch. Reference Dosage: 0.2% ~ 0.4%



Specifications

Test	Specification	Test Method
Appearance	White Powder	Visual
Purity	$\geq 98.5\%$	By AAS
Ash content	$\leq 0.5\%$	Oven ignition 600 degrees C
Volatility	$\leq 0.5\%$	Oven Drying
Particle size (Typical) D100	< 150 Microns	Particle size analyser

Product FDA Status

MDBS 3940 is approved for use in food contact polymer as per the following chapter headings.

Title	21 - Food And Drugs
Chapter	I - Food And Drug Administration, Department Of Health And Human Services (Continued)
Sub Chapter	B - Food For Human Consumption (Continued)
Part	178 - Indirect Food Additives: Adjuvant, Production Aids And Sanitizers
Sub Part	D - Certain Adjuvant And Production Aids
Section	178.3295 Clarifying Agents For Polymers.



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