

Clarifying Nucleating Agent Masterbatch for PP

Application

Masterbatch applying transparency to polypropylene (PP) food packaging materials, stationeries, household goods, and industrial components

Characteristics

- Masterbatch dispersed with clarifying nucleating agent for PP at high concentration, having excellent workability and anti-staining property.
- Capable of producing extremely transparent molded articles by using Homo/Random PP (Nonuse of nucleating agent is recommended).
- Applicable to various molding methods such as injection, extrusion, and blow moldings.
- Excellent transparency even in a small addition amount compared with conventional products.
- Sufficient transparency effect even by low temperature molding because of the small temperature dependency.
- Applicable to food packaging materials because of having little harmful impact on smell and taste of the content.
- Our clarifying nucleating agent is already registered and approved by U.S. Food and Drug Administration (FDA) and Japan Chemical Innovation and Inspection Institute (JCII).
- And our masterbatch itself containing the clarifying nucleating agent is also registered and approved by JCII.
- Suitable for applications requiring heat-resistance because of having high deflection temperature under load.
- Capable of expecting improvement of mechanical properties and cycle time reduction in molding process by increasing crystallinity and crystallization temperature.

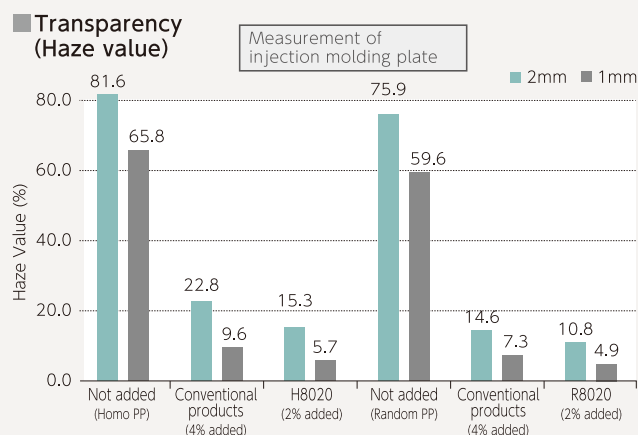
Representative Products

Product name	Base resin	Recommended Addition amount (%)	JCII's Certificate registration number (limitation amount)
H8020	Homo PP	1.5~2.5	[B]PM-56878 (less than 2.5% to PP)
R8020	Random PP	1.5~2.5	

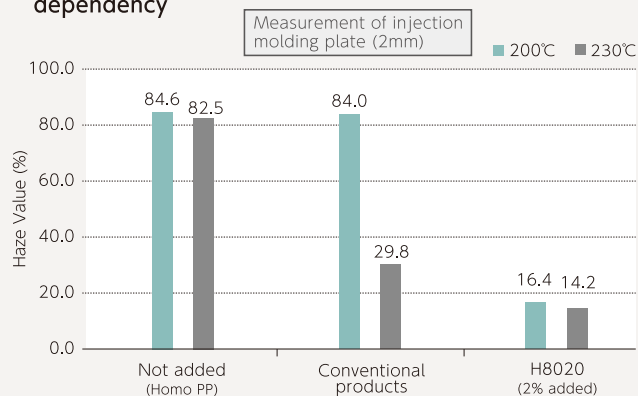
Evaluation Results

Transparency of molded articles

★ Comparison with the conventional products (H300)



Molding temperature dependency



* Haze Value : JIS K 7136 The smaller the number, the more transparency.

Mechanical properties

Items of physical properties	Test standard	Unit	Homo PP No additives	Homo PP H8020=2%
Tensile strength	ISO 527	MPa	35	42
Tensile elongation		%	83	9
Tensile modulus		MPa	1,618	2,184
Flexural strength	ISO 178	MPa	46	57
Flexural modulus		MPa	1,627	2,164
Charpy impact value	ISO 179	KJ/m ²	1.4	1.5
Heat distortion temperature (under low load)	ISO 75	°C	94	109
Shrinkage rate	Our company standard	%	1.1	1.3
Crystallization temperature	Our company standard	°C	112	132

Clarifying nucleating agent masterbatch:H8020

* Above is our internal experimental data. It is not guaranteed.