

Foaming Solutions for the Plastics Industry

Rajiv Plastic Industries offers a wide range of masterbatches containing a variety of Foaming Agents. These foaming agent masterbatches provide the processor a means of metering precise quantities of the active ingredients.

Advantages of Foaming Agents:

- Weight reduction
- Raw Material Savings
- Elimination of Sink Marks and Warpage
- Sandwich effect (better wall toughness)
- Surface finishes and textures

Foaming Agent Masterbatches - These are compounds which decompose at elevated temperatures forming gas and other inert components that expand the plastic material giving it a cellular structure. This process offers weight reduction, better acoustical properties, better insulation as well as cost savings. These can be further divided into exothermic foaming agents and endothermic foaming agents. Exothermic foaming agents are usually used for larger parts while endothermic foaming agents can be used for tapes film sheet and removal of sink marks for in molded parts.

Endothermic Foaming Agent Masterbatches: These are based on carbonates/citric acid, generate carbon dioxide and water vapour and react by consuming heat. These absorb energy / heat during decomposition, which leads to uniform and fine cell structure, smooth surface, reduction in cycle times and rapid degassing without causing any discoloration. These are especially useful for foam extrusion, foam injection molding and foam blow molding.

Exothermic Foaming Agent Masterbatches: These are systems are based on Azodicarbonamides and liberate nitrogen, carbon monoxide and ammonia. These generate heat when the gas formation begins.

Anti Sink Masterbatches - These work on the principle of foaming agents and nucleation. They are very effective in removal of sink marks especially in areas over ribs and give completely flat parts.

Our Range of Foaming agents and their uses include:

Product	Max. Temp. of Processing (°C)	Addition Level %	Application
Sinkex 860	170 - 240	0.2 - 2.0	For small articles / small machines
Sinkex 861	170 - 240	0.2 - 2.0	For medium size articles / mid - large size machines
Sinkex 862	170 - 240	0.2 - 2.0	For larger parts / larger machines
RPI B 2.5 E	160 - 215	1.0 - 3.0	Low temperature applications like extrusion and injection molding of EVA, LDPE, etc.,
RPI B 4.0 E	160 - 215	0.5 - 2.0	
RPI B 7.0 E	160 - 215	0.5 - 2.0	
RPI C 2.0 E	185 - 235	0.4 - 2.5	Medium temperature applications like extrusion and injection molding of LDPE, HDPE, PP, PS and ABS
RPI C 4.0 E	185 - 235	0.2 - 2.5	
RPI C 4.0 T	185 - 235	0.2 - 2.5	
RPI C 7.0	185 - 235	0.1 - 1.8	
RPI H 2.0 E	190 - 250	0.4 - 5.0	High Temperature applications like Extrusion and injection molding of HDPE, PP, PS, ABS, PA & PET
RPI H 4.0 E	190 - 250	0.2 - 2.5	
RPI P 4.0 P	190 - 250	0.2 - 2.0	



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