

# CRYSTALADD® HM-664

# Ravago Manufacturing Americas - High Density Polyethylene

Tuesday, November 5, 2019

## **General Information**

### **Product Description**

NUCLEATOR MASTERBATCH

HM-664 is an additive concentrate containing Milliken's Hyperform® HPN-210M nucleator. This masterbatch compound is designed to reduce cycle time in injection molded polyethylene parts, improve stiffness and HDT, and reduce or improve warpage challenges during processing.

#### Key Features:

- · Designed to be added to injection molded polyethylene parts
- · Improved stiffness, HDT and part uniformity
- · Uniform concentration of additives in concentrate form.
- · Masterbatch pellet form for ease of addition and feeding into extrusion equipment

#### Directions for Use:

- HM-664 is added to HDPE or LLDPE at 2.5% to 5% to achieve faster cooling, higher crystallization temperature and a higher crystallization rate.
   Parts are ejected from the mold with at a higher overall temperature but will have more completed crystal formation, allowing for a reduced overall cycle time.
- Note: Effectiveness is significantly reduced in LDPE due to the high long chain branching of the polymer. LDPE with MI > 25 can present some of the above performance improvements.

#### FDA Compliance:

· This product is not approved for use in food contact applications at this time, but will be updated once regulatory tests are completed.

General			
Material Status	Commercial: Active		
Availability	North America		
Uses	<ul> <li>Masterbatch</li> </ul>		
Forms	• Pellets		
Processing Method	<ul><li>Blow Molding</li><li>Extrusion</li></ul>	<ul><li>Film Extrusion</li><li>Injection Molding</li></ul>	

ASTM & ISO Properties <sup>1</sup>				
Physical	Nominal Value	Unit	Test Method	
Density	0.950	g/cm³	ASTM D792	
Melt Mass-Flow Rate (190°C/2.16 kg)	8.2	g/10 min	ASTM D1238	
Additional Information	Nominal Value	Unit	Test Method	
Nucleating Agent - HPN-210M	4.0	%	Internal Method	
Polymer Base	HDPE			

#### **Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

