

Hunthumber™ JMV400

Adhesive Resin

Description

Hunthumber[™] JMV400 resins are acid-anhydride-modified linear low density polyethylene(LLDPE) resins.

They are available in pellet form for use in conventional extrusion and coextrusion equipment designed to process polyethylene (PE) resins.

Typical Characteristics	
Characteristics	Hunthumber [™] JMV400 resin exhibits physical properties similar to linear
	low-density polyethylene with the similar density and melt index. Use of these adhesive resins in coextruded PE/barrier structures offers improved thermal resistance over that of ethylene vinyl acetate-based adhesive resins.
Applications	Hunthumber [™] JMV400 resin is specifically designed to provide high
	adhesion to both metals and polyolefins when converted into film form and used as a thermal lamination film. It has a low coefficient of friction for easy film handling and provides strong bonds that fail cohesively.
	Hunthumber [™] JMV400 resin can be utilized in the following co-extrusion
	processes:
	• Blown film
Typical Properties	

Properties	Test Method(s)		Typical Value	Unit
Density	ASTM D792	ISO 1183	0.92	g / cm3
Melt Flow Index(190°C/2.16kg)	ASTM D1238	ISO 1133	4.1	g / 10min
Melting Point	ASTM D3418	ISO 3146	128	°C
Vicat Softening Point	ASTM D1525	ISO 306	100	°C



Adhesive Evaluation	The performance of any adhesive resin should be evaluated within the context of the application. The adhesive is designed to bond materials that would not ordinarily adhere to each other. In most cases, peel strength is used as a measure of performance. Although this is a convenient test, peel strength is affected not only by adhesion, but also by peel angle, separation rate, temperature, and tensile and modulus properties of the materials, and often by the time elapsed since the formation of the bond. Post-treatment of the multi-layer structure, such as heat sealing, thermoforming or orientation can also affect peel strength.
Processing Information	
Maximum Processing Temperature	260°C (500°F)
General	Hunthumber [™] JMV400 resins have high softening points. In coextrusions
Processing Information	with thermally sensitive resins such as EVOH or EVA, we suggest that the maximum melt temperature be limited to $235^{\circ}C$ ($455^{\circ}F$) to guard against overheating the EVOH or EVA. If adhesion results are adequate, we suggest evaluating even lower melt temperatures such as $210 - 220^{\circ}C$ ($410 - 428^{\circ}F$). For coextrusion with polyamides or other thermally stable resins, the melt temperature can be higher. We suggest a maximum melt temperature of $260C(500^{\circ}F)$. This should provide acceptable bond strengths and film quality under almost all coextrusion conditions. If adhesion results are adequate, melt temperatures can be lowered. Higher extrusion temperatures, particularly when coupled with long residence times, may result in some film imperfections. In certain streamlined extrusion operations, where residence times are short, it may be possible use temperatures higher than $260^{\circ}C$ ($500^{\circ}F$).
Storage Condition	

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Hunthumber[™] JMV400 resins should be stored under dry and cool conditions. Improper storage conditions may cause degradation and have consequences on physical properties of the product.

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See MSDS for Health & Safety Considerations.