

## DuPont Nucrel® 31001 Ethylene-Acrylic Acid Copolymer Resin for Blown and Cast Film

Category : Polymer , Film , Thermoplastic , Ethylene Acrylic Acid

### Material Notes:

9.5 wt% Acrylic Acid. Nucrel® 31001 is an ethylene-acrylic acid copolymer resin available for use in blown and cast film extrusion and coextrusion equipment designed to process polyethylene resins. Features/Benefits: Excellent adhesion to coextruded nylon for superior structure reliability and barrier integrity. High film strength for excellent structure reliability and product protection. Very good hot tack, sealability through contamination, and heat seal strength for strong, reliable heat seals. Typical Applications: Meat, poultry, seafood, and cheese packaging. Medical/pharmaceutical packaging. Edible oil, motor oil, and other liquid product pouches. Coextrusions with nylon or in other film structures as a heat seal or tie layer. Information provided by DuPont Packaging Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Nucrel-31001-Ethylene-Acrylic-Acid-Copolymer-Resin-for-Blown-and-Cast-Film.php](http://www.lookpolymers.com/polymer_DuPont-Nucrel-31001-Ethylene-Acrylic-Acid-Copolymer-Resin-for-Blown-and-Cast-Film.php)

Physical Properties	Metric	English	Comments
Density	0.940 g/cc	0.0340 lb/in <sup>3</sup>	ASTM D792
Melt Flow	1.3 g/10 min @Load 2.16 kg, Temperature 190 °C	1.3 g/10 min @Load 4.76 lb, Temperature 374 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	490 %	490 %	50 µm (2 mil) film; ASTM D882
Film Elongation at Break, TD	440 %	440 %	50 µm (2 mil) film; ASTM D882
Secant Modulus, MD	0.124 GPa	18.0 ksi	50 µm (2 mil) film; ASTM D882
Secant Modulus, TD	0.124 GPa	18.0 ksi	50 µm (2 mil) film; ASTM D882
Impact	31	31	J/mm Spencer Impact; ASTM D3420
Graves Tear Strength	75.3 kN/m	430 pli	TD; ASTM D1004
	81.1 kN/m	463 pli	MD; ASTM D1004
Elmendorf Tear Strength, MD	4.33 g/micron	110 g/mil	50 µm (2 mil) film; ASTM D1922
Elmendorf Tear Strength, TD	7.09 g/micron	180 g/mil	50 µm (2 mil) film; ASTM D1922
Dart Drop Test	7.90 g	0.0174 lb	
Seal Strength	2500 g/25 mm	2500 g/in	seal bar 140°C.
Film Tensile Strength at Break, MD	33.0 MPa	4790 psi	50 µm (2 mil) film; ASTM D882
Film Tensile Strength at Break, TD	30.0 MPa	4350 psi	50 µm (2 mil) film; ASTM D882

Mechanical Properties	Metric	English	Comments
Thermal Properties	Metric	English	Comments
Melting Point	80.0 °C	176 °F	Freezing Point via DSC/ASTM D3418
	99.0 °C	210 °F	Upon Melting via DSC/ASTM D3418
Vicat Softening Point	79.0 °C	174 °F	ASTM D1525

Optical Properties	Metric	English	Comments
Haze	7.0 %	7.0 %	ASTM D1003
Gloss	40 %	40 %	20°; ASTM D2457
Transmission, Visible	30 %	30 %	%Clarity

Processing Properties	Metric	English	Comments
Nozzle Temperature	191 °C	376 °F	Typical Die Temp.
Melt Temperature	190 - 218 °C	374 - 424 °F	

## Contact Songhan Plastic Technology Co.,Ltd.

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