



NORDEL IP NDR 4820P

Hydrocarbon Rubber

NORDEL™ IP NDR 4820P Hydrocarbon Rubber is a crystalline ethylene-propylene-diene terpolymer (EPDM). It has a low viscosity for excellent flow characteristics and hot green strength. It has been designed for property modification of thermoset rubber and thermoplastic polyolefin compounds including polyethylene and polypropylene. It can be crosslinked via traditional techniques including sulfur, phenolic, peroxide, irradiation, and hydrosilylation. NDR 4820P is developmental and made via INSITE* technology.

Main Characteristics

- Highly crystalline
- Medium diene
- Low molecular weight
- High green strength
- Complies with U.S. FDA 21 CFR 177.2600,⁽¹⁾ U.S. FDA 21 CFR 177.1520,^{(1) (2)} U.S. FDA 21 CFR 175.105.⁽³⁾ Consult the regulations for complete details.

Applications

- High hardness extrusions and moldings
- Plastics modification

Properties⁽⁴⁾

Typical Polymer	Test Method	Value
Melt Index (@ 190°C, 2.16 kg), dg/min	ASMT D 1238	1.0
Mooney Viscosity, ML 1 + 4 @ 125°C	ASTM D 1646	20 (est)
Polymer Composition, mass %		
Ethylene	ASTM D 3900	85
Propylene	ASTM D 3900	10.1
Ethylidenenorbornene	ASTM D 6047	4.9
T _m , °C		90
Molecular Weight Distribution	Dow Method	Narrow
Product Density, g/cc	ASTM D 297	0.91
Residual Transition Metal, ppm	Dow Method	10 maximum
Ash Content, mass %	ASTM D 5667	0.1 maximum
Total Volatiles, mass %	Dow Method	0.4 maximum
Product Form		Pellets

(1) Can be used in contact with all foods except water in oil emulsions, high or low fat, and low moisture fats and oil.

(2) Compliant as a blend component in compliant polymers at levels up to 25% for conditions of use E through G.

(3) Adhesives only.

(4) These are typical properties only and are not to be regarded as sales specifications.

Storage and Handling

The quality of EPDM products may be affected by exposure to artificial or natural light. This product should be stored indoors in its original packaging and out of direct sunlight.

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Additional Information

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