



NORDEL™ IP 4820

Hydrocarbon Rubber

Overview

NORDEL IP 4820 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. NORDEL IP 4820 is Commercial Active 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 (See NOTES 1)
 - U.S. FDA 21 CFR 177.1520 (See NOTES 1 & 2)
 - U.S. FDA 21 CFR 175.105 (See NOTES 3)
 - Consult the regulations for complete details.

Applications:

- High hardness extrusions and moldings
- Plastics modification

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.

NOTES:

- (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.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.910 g/cm ³	0.910 g/cm ³	ASTM D297
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Ethylene Content	85.0 wt%	85.0 wt%	ASTM D3900
Ethylidene Norbornene (ENB) Content	4.9 wt%	4.9 wt%	ASTM D6047
Mooney Viscosity ¹ (ML 1+4, 257°F (125°C))	20 MU	20 MU	ASTM D1646
Ash Content	< 0.1 wt%	< 0.1 wt%	ASTM D5667
Molecular Weight Distribution	Narrow	Narrow	Dow Method
Propylene Content	10.1 wt%	10.1 wt%	ASTM D3900
Residual Transition Metal	< 10 ppm	< 10 ppm	Dow Method
Total Volatiles	< 0.4 wt%	< 0.4 wt%	Dow Method
Thermal	Nominal Value (English)	Nominal Value (SI)	
Melting Temperature	194 °F	90.0 °C	

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Estimated value

