

# NOVIS P-490 Speciality Polymers

## TECHNICAL DATA SHEET

NOVIS P-490 is an Isotactic low molecular weight polypropylene with enhanced flow properties. Melting point and most of its mechanical properties are similar to conventional PP. It is its low molecular weight and narrow molecular weight distribution which impart NOVIS P-490 high melt flow rate.

### Key Properties

General	Typical Value (SI)	Test Method
MFI (230 °C/2.16 Kg)	1500-1600 g/10min	ASTM D1238
Density	0.903 g/cm <sup>3</sup>	ASTM D792
Bulk Density	0.51 g/ml	PLUSS <sup>®</sup> method

Mechanical	Typical Value (SI)	Test Method
Tensile Strength	16 MPa	ASTM D638/2010
Percentage Elongation	4 %	ASTM D638/2010
Tensile Modulus	580 MPa	ASTM D638/2010
Flexural Modulus	1150 MPa	ASTM D790/2010
Flexural Strength	40 MPa	ASTM D790/2010

Thermal	Typical Value (SI)	Test Method
Melting Temperature	161 °C	DSC
Vicat Softening Temperature	149 °C	ASTM 1525/2010

#### Pluss Advanced Technologies Pvt. Ltd.

B-205, Tower B – Pioneer Urban Square, Sec 62, Gurugram-122008, Haryana, India

Telephone: +91 - 124 - 4309490/91/92

E-mail: [info@pluss.co.in](mailto:info@pluss.co.in) | Web: [www.pluss.co.in](http://www.pluss.co.in)

Hardness	Typical Value (SI)	Test Method
Durometer Hardness		
Shore D	58	ASTM D2240/2004

## Applications

Most suited for melt blown and spun PP nonwoven fabric. NOVIS P-490 can also be used as-

- MFI improver in making fine denier multifilament yarn.
- Processing aid in PP injection moulding.
- Melt flow improver in highly filled PP compound.
- NOVIS P-490 is used as main polymer raw material for making melt blown non-woven fabric of different specifications. Applications include PPE for medical and hygiene purpose, automobile interior, and packaging.

## Storage and Handling Procedures

NOVIS P-490 is non- hygroscopic like conventional PP. Pre-heating is not required under normal conditions. However it should be stored in a cool, dry & well-ventilated place. Read and understand Safety Data Sheet (SDS) for more detailed information on the safe handling and disposal of these specialty polymers.

## Processing Conditions

NOVIS P-490 can be processed on its own in melt blown and spun bond PP non-woven products. It is used as an additive in polymer processing and compounding. Addition level depends on flow enhancement needed. Upto 5% addition to the base composition does not significantly change mechanical properties, while improving processability. The known processing parameters of the base polymer serve as basic guideline, but the actual processing conditions vary according to the chosen addition levels of NOVIS. For all practical purposes, thermal stability of NOVIS P-490 is of the same order as that of conventional PP.

## Packaging

NOVIS specialty polymers are supplied in pre-dried form in 25 Kg (55 lbs) PE lined, HD woven sack-laminated paper bags and 750 Kg (1650 lbs) FIBC's. Depending upon customer's requirement, the bags can be further palletized for dispatch. They should be stored in cool and dry place.

The information given here is meant as a guide to determining suitability of our products for the stated applications. It is based on trials carried out by our laboratories and data selected from literature and shall in no event be held to constitute or imply any warranty. The products are intended for use in industrial applications. The users should test the materials before use and satisfy themselves with regard to contents and suitability in the desired application. Our formal specifications define the limits of our commitment. Recommendation herein may not be construed as freedom to infringe/operate under any third party patents. In the event of a proven claim, our liability is limited only to replacement of our material and in no case shall we be liable for special, incidental or consequential damages arising out of usage of our material. This datasheet is subject to change without notice.