

# H034EG

## POLYPROPYLENE HOMOPOLYMER FOR BOPP & CPP FILM PRODUCTION

Nayara H034EG is Polypropylene Homopolymer made with Unipol technology using state of the art catalyst system. The grade architecture facilitates high line speed processing and stretching for BOPP thin films production with close thickness tolerance, high transparency and gloss.

### APPLICATIONS

BOPP films for food packaging laminates, cigarette overwrap, and flower overwrap, textile packaging, adhesive tapes, metallized BOPP films etc.

### ADDITIVES

- Thermal Stabilizer

### TYPICAL PROPERTIES

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
<b>Resin Properties</b>			
Melt Flow Rate (230° C. /2.16 Kg)	g/10 min.	ASTM D1238	3.4
Density @ 23° C.	g/cc	ASTM D792	0.900 – 0.910
<b>Mechanical Properties</b>			
Tensile Yield Strength	MPa	ASTM D638	33.0
Elongation at Yield	%	ASTM D638	9.0
Flexural Modulus (1 % Secant)	MPa	ASTM D790A	1450
Izod Impact Strength	J/m	ASTM D256	50
Hardness	Shore D	ASTM D2240	70
<b>Thermal Properties</b>			
DSC Melting Point	° C	ASTM D3418	160 - 165
Heat Deflection Temperature (0.45 MPa)	° C	ASTM D648	104
<b>BOPP Film Properties (Thickness: 20 µ)</b>			
Haze	%	ASTM D1003	< 1.0
Gloss @ 45 °	GU	ASTM D2457	> 90

Note: All the properties mentioned above are typical properties and not to be considered as specifications. All the mechanical properties on ASTM D638 Type I specimen when molded according to ASTM D4101.



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CHEMISTRY THAT PERFORMS

### Typical Processing Guidelines:

Processing temperature: 215 – 275° C

Chill roll temperature: 20 – 50° C

Stretching temperatures: MDO: 125 – 155 ° C; TDO: 150 – 170 ° C

Stretch Ratio: MDO: 4 – 8, TDO: 7 – 11

Note: The processing conditions mentioned above are for reference only. The conditions may vary based on the machine used and product to be manufactured.

### Regulatory Compliance:

The product complies with the requirements of,

(1) IS 10910:1984: Specification for Polypropylene & its Copolymers for safe use in contact with Foodstuff, Pharmaceutical & Drinking Water.

(2) IS 16738: 2001: The additives in the grade formulation comply to the "Positive List of Constituents of Polypropylene and its Copolymers in Contact with. Foodstuffs, Pharmaceuticals and Drinking Water".

(3) FDA: CFR Title 21, 177.1520: Grade meets the requirements of the US FDA specifications and limitations in 21 CFR 177.1520 regarding safe use of articles or components of articles of olefin polymers intended for use in contact with food.

EPR compliance: The product is not to be used in the manufacture of single use plastic items prohibited under the Plastic Waste Management Rules, 2016 including plastic sheets < 50 micron thickness, non-woven carry bags < 60 GSM, Carry bags < 120 micron thickness.

### Storage:

Bags containing Nayara polymer products, should be stored in a covered dry place away from heat and sun rays. Recommended storage temperature is below 50° C.

### Disclaimer

The information provided in this technical data sheet is true to the best of our knowledge. The data provided in the document is for reference only and the values stated are typical values obtained when the polymer is processed under standard processing conditions and when tested as per stated test standards. Nayara energy do not guarantee or warrant the performance of the end product made from this grade. It is sole responsibility of the user to ascertain the suitability of the grade for intended application and process. User is advised to test the properties of the end product and to satisfy itself regarding performance. Nayara energy will not be responsible for any direct or indirect loss or damage or injury because of the use of this grade or information of the grade given in this document. This document is not a suggestion to use our grade. Nayara energy reserves the right to change the information presented in this document any time without any prior intimation.

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