



## Luban HP3104K

### Polypropylene Homopolymer

#### Description

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Luban polypropylene is manufactured using Novolen vertical stirred Gas-phase polymerization process. Luban HP3104K is a homopolymer polypropylene, it is suitable for high speed metallisable Biaxially Oriented Polypropylene (BOPP) film.

#### Application

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Core layer in BOPP film. Food and non-food packaging bags, plain and laminated garment bags, plain and pigmented label film, lamination film, plain overwrap film, plain and colored adhesive tapes.

#### Properties (Typical Values)

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| Property                               | Units              | Test method | Value |
|----------------------------------------|--------------------|-------------|-------|
| Melt flow rate (230°C/2.16 kg)         | g/10 min           | ASTM D1238  | 3.3   |
| Density                                | g /cm <sup>3</sup> | ASTM D792   | 0.90  |
| Flexural Modulus (1% Secant)           | MPa                | ASTM D790   | 1350  |
| Tensile Stress @ Yield                 | MPa                | ASTM D638   | 37    |
| Elongation @ Yield                     | %                  | ASTM D638   | 9     |
| Tensile Stress @ Break                 | %                  | ASTM D638   | 19    |
| Elongation @ Break (+23°C)             | kJ/m <sup>2</sup>  | ASTM D638   | >50   |
| Notched Izod Impact Strength @23°C     | kJ/m <sup>2</sup>  | ASTM D256   | 35    |
| Vicat Softening Temperature (10N)      | °C                 | ASTM D1525  | 155   |
| Heat Deflection Temperature (0.45 MPa) | °C                 | ASTM D648   | 100   |

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

#### Processing Guidelines

The Typical Processing Conditions for Luban HP3104K are:

|                           |              |
|---------------------------|--------------|
| Extrusion Temperatures    | 200 – 250 °C |
| Chill Roll Temperature    | 20 – 40 °C   |
| MD Stretching Temperature | 130 – 160 °C |
| MD Stretching Ratio       | 4 – 7        |
| TD Stretching Temperature | 155 – 170 °C |
| TD Stretching Ratio       | 7 – 10       |

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#### Storage and Handling

Luban HP3104K must be protected from direct sunlight and should be stored in a shaded and completely dry area. During handling and processing, the material should be kept in a well-ventilated area to prevent the accumulation of dust and fumes. Contact with strong oxidizers, excessive heat, sparks or open flame should be avoided as this could initiate the degradation process and consequently impact the quality of the material.

#### Safety

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Luban HP3104K is not classified as dangerous preparation. For further information about safety in handling and processing please refer to the Safety Data Sheet.

#### Food Contact

Luban HP3104K meets the requirements of the U.S. Food and Drug Administration (FDA) as specified in 21 CFR 177.1520, covering safe use of polyolefin articles and components of articles intended for direct food contact. For additional information on approved conditions of use for food contact applications, please refer to the "Product Stewardship Declaration".

#### Recycling

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

Updated: Feb. 2023

#### Disclaimer:

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