

Technical Data Sheet

Lupolen 3020K



Low Density Polyethylene

Product Description

Lupolen 3020 K is a non-additivated, low density polyethylene. It is characterized by a good processability. LyondellBasell customers report that films made from Lupolen 3020 K exhibit a glossy surface finish.

Lupolen 3020 K provides the option to produce films with very good optical properties. It is delivered in pellet form.

This product is not intended for use in medical and pharmaceutical applications.

Regulatory Status

For regulatory compliance information, see Lupolen 3020K [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

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|--------------------------|--|
| Status | Commercial: Active |
| Availability | Europe |
| Application | Food Packaging Film; Lamination Film; Shrink Film; Surface Protection Film |
| Market | Flexible Packaging |
| Processing Method | Blown Film; Cast Film; Injection Molding |
| Attribute | Good Heat Seal; Good Processability; Superior Optical Properties |

| Typical Properties | Nominal Value | Units | Test Method |
|---------------------------------------|---------------|-------------------|---------------|
| Physical | | | |
| Melt Flow Rate, (190 °C/2.16 kg) | 4.0 | g/10 min | ISO 1133-1 |
| Density | 0.928 | g/cm ³ | ISO 1183-1 |
| Mechanical | | | |
| Tensile Modulus | 300 | MPa | ISO 527-1, -2 |
| Tensile Stress at Yield | 13 | MPa | ISO 527-1, -2 |
| Film | | | |
| Dart Drop Impact Strength, F50 | 90 | g | ASTM D1709 |
| Tensile Strength | | | |
| MD | 20 | MPa | ISO 527-1, -3 |
| TD | 17 | MPa | ISO 527-1, -3 |
| Tensile Strain at Break | | | |
| MD | 350 | % | ISO 527-1, -3 |
| TD | 600 | % | ISO 527-1, -3 |
| Coefficient of Friction | >0.8 | | ISO 8295 |
| Impact | | | |
| Failure Energy | 3.5 | J/mm | DIN 53373 |
| Thermal | | | |
| Vicat Softening Temperature, (A/50 N) | 97 | °C | ISO 306 |
| Peak Melting Point | 114 | °C | ISO 11357-3 |
| Optical | | | |
| Haze, (50 µm) | <7 | % | ASTM D1003 |

| | | |
|---|------------|------------|
| Gloss | | |
| (20°) | >80 | ASTM D2457 |
| (60°) | >115 | ASTM D2457 |
| Additional Information | | |
| Test Specimen | Film | |
| Film properties tested using 50 µm thickness blown film extruded at a melt temperature of 170°C and a blow-up ratio of 2.5:1. | | |
| Processing Parameters | | |
| Extrusion Temperature | 150-190 °C | |

Notes

These are typical property values not to be construed as specification limits.