

# HANWHA

## Linear Low Density Polyethylene

# 3120

Blown Film Grade

**MELT INDEX**      **1.0**  
**DENSITY**            **0.920**

HANWHA LLDPE 3120 is manufactured by Unipol process and designed for general purpose and agricultural film . LLDPE 3120 has well balanced property of mechanical property, processability and optical property

This product complies with U.S. FDA regulation 21 CFR 177.1520 (c) 3.1.a.

▣ **Outstanding Properties**

Mechanical Property  
 Optical Property  
 Processability

▣ **Processing Conditions**

Melt Temperature : 150 ~ 190 °C  
 Blow-up Ratio : 2 ~ 3  
 Optimum Gage Range : 0.03 ~ 0.1 mm

▣ **Additives**

Antioxidant, Slip agent, Anti-block agent

▣ **Physical Properties**

| Physical Properties                     | Unit               | Test Method | Value     |
|---|--------------------|-------------|-----------|
| Melt Index                              | g/10min            | ASTM D1238  | 1.0       |
| Density                                 | g/cc               | ASTM D1505  | 0.920     |
| Vicat Softening Point                   | °C                 | ASTM D1525  | 103       |
| Melting Point                           | °C                 | HCC Method  | 122       |
| Tensile Strength at Break               | kg/cm <sup>2</sup> | ASTM D638   | 220       |
| Elongation at Break                     | %                  | ASTM D638   | 900       |
| Brittleness Temperature, F <sub>0</sub> | °C                 | ASTM D746   | < -76     |
| Film Properties                         | Unit               | Test Method | Value     |
| Film Thickness                          | mm                 | HCC Method  | 0.03      |
| Tensile Strength at Break               | kg/cm <sup>2</sup> | ASTM D882   | MD<br>420 |
|   |                    |             | TD<br>380 |
| Elongation at Break                     | %                  | ASTM D882   | MD<br>650 |
|   |                    |             | TD<br>750 |
| Tensile Tear Strength                   | Kg/cm              | ASTM D1004  | MD<br>120 |
|   |                    |             | TD<br>125 |
| Dart Impact Strength                    | g                  | ASTM D1709  | 140       |
| Haze                                    | %                  | ASTM D1003  | 10.0      |

1. These are typical properties : not to be construed as specification.
2. The value for this property is dependent on part geometry and fabrication conditions.

