

# HANWHA

## Linear Low Density Polyethylene

# 3224

Blown Film Grade

**MELT INDEX** 2.0  
**DENSITY** 0.920

HANWHA LLDPE 3224 is manufactured by Unipol process and designed for general purpose and agricultural film . LLDPE 3224 has well balanced property of mechanical property and processability.

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

■ **Outstanding Properties**

Mechanical 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-blocking agent

■ **Physical Properties**

Physical Properties	Unit	Test Method	Value
Melt Index	g/10min	ASTM D1238	2.0
Density	g/cc	ASTM D1505	0.920
Vicat Softening Point	°C	ASTM D1525	101
Melting Point	°C	HCC Method	122
Tensile Strength at Break	kg/cm <sup>2</sup>	ASTM D638	185
Elongation at Break	%	ASTM D638	940
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 380
			TD 360
Elongation at Break	%	ASTM D882	MD 550
			TD 750
Tensile Tear Strength	Kg/cm	ASTM D1004	MD 115
			TD 120
Dart Impact Strength	g	ASTM D1709	90
Haze	%	ASTM D1003	12.0

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.