

Film Grade

**MELT INDEX** 2.0  
**DENSITY** 0.923

Hanwha LD 2023 is manufactured by IPC, an affiliate of Hanwha in The Kingdom of Saudi Arabia using an Exxon-Mobil high pressure tubular process and designed for variety of film application. LD 2023 has well balanced property of high clarity, mechanical property and processability.

### ■ Outstanding Properties

Excellent Optical Property  
Good Mechanical Properties  
Good Processability

### ■ Additives

Anti-Oxidant, Slip Agent, Antiblock

### ■ Physical Properties

Physical Properties	Unit	Test Method	Value
Melt Index	g/10min	ASTM D1238	2.0
Density	g/cm <sup>3</sup>	IPC Method	0.923
Melting Point	°C	IPC Method	110
Tensile Strength at Yield (MD/TD)	MPa	ASTM D882	11/11
Tensile Strength at Break (MD/TD)	MPa	ASTM D882	25/22
Elongation at Break (MD/TD)	%	ASTM D882	330/550
Secant Modulus MD – 1% Secant	MPa	ASTM D882	210
Secant Modulus TD – 1% Secant	MPa	ASTM D882	230
Drop Dart Impact	g	ASTM D1709A	80
Elmendorf Tear Strength (MD/TD)	g	ASTM D1922	150/120
Gloss (45%)		ASTM D2457	63
Haze	%	ASTM D1003	6.1

<sup>1</sup> These are typical values, not specifications. Some of the physical property values depend on the test equipment geometry and test conditions.



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