Arena Petro Gas

Producer and Supplier in the fields of Chemical ,Oil ,Gas and Petrochemical industries

DATE: 2024-2025
Arena Code: AS10308/LPC-LDPE L2100TN00

Technical Data Sheet

LDPE L2100TN00

Low Density Polyethylene

Low-density polyethylene (LDPE) is a thermoplastic made from the monomer ethylene. It was the first grade of polyethylene. LDPE is defined by a density range of 0.917–0.930 g/cm^3.
LDPE has more branching (on about 2% of the carbon atoms) than HDPE, so its intermolecular forces (instantaneous-dipole induced-dipole attraction) are weaker, its tensile strength is lower, and its resilience is higher. Also, because its molecules are less tightly packed and less crystalline due to the side branches, its density is lower. LDPE uses majorly revolve around manufacturing containers, dispensing bottles, wash bottles, tubing, plastic bags for computer components, and various molded laboratory equipments. LDPE has an excellent resistance to acids, bases and vegetable oils.

Applications:

Grade with excellent toughness and tear strength and outstanding shrink properties. very low energy consumption during processing and has excellent draw down ability. The material contains no additives and is suitable for application in shrink hoods, industrial sacks ,heavy duty carrier bags and liners.

Additives:

Anti oxidant,

Properties	Value	Units	Test Method
Melt Flow Rate	0.3	dg/min	
Density	921	kg/m^3	
Clarity	65	MV	SABTEC method
Impact Strength	35	KJ/m	ASTM D 4272
Tear strength (TD)	25	KN/m	
Tear Strength (MD)	20	KN/m	
Yield stress (TD)	11	MPa	
Yield stress (MD)	12	MPa	
Tensile stress at break (TD)	26	MPa	
Tensile Stress at Break (MD)	29	MPa	
Strain at Break (TD)	>500	%	
Strain at Break (MD)	>200	%	
Modulus of Elasticity (TD)	190	MPa	
Modulus of Elasticity (MD)	180	MPa	
Coefficient of friction	0.72	-	ASTM D 1894
Blocking	<5	g	
Re-blocking	30	g	
Haze	12	%	ASTM D 1003A
Gloss (45 ˚)	46	%	ASTM D 2457

*Film properties have been measured at 45µm films.

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