

# LDPE-LI2200

## Low Density Polyethylene for Injection Moulding

### General Description

LI2200 is specially developed for applications that require a good balance between flow properties and mechanical properties.

### • Typical Applications

- Toys
- Household articles
- Clamping lids

**Additive:** Antioxidant

## Product Specification

PHYSICAL/MECHANICAL PROPERTIES	VALUE*	UNIT	TEST METHOD
MFI (190 °C /2 .16 Kg )	22	g/10 min	ISO 1133
MFI (190 °C /5 Kg )	75	g/10 min	ISO 1133
MVR (190 °C /2 .16 Kg )	29	ml/10 min	ISO 1133
MVR (190 °C /5 Kg )	98	ml/10 min	ISO 1133
Density	919	Kg/m <sup>3</sup>	ISO 1183 (A)
Heat deflection temperature at 0.45 MPa (HDT/B)	39	°C	ISO 75
Vicat softening temperature at 10 N (VST/A)	82	°C	ISO 306
Melting point	105	°C	DIN 53765
Enthalpy change	104	J/g	DIN 53765
Stress at yield	8	MPa	ISO 527/2
Stress at break	7	MPa	ISO 527/2
Strain at break	400	%	ISO 527/2
Tensile modulus	175	MPa	ISO 527/2
Creep modulus (after 1 hour)	80	MPa	ISO 899
Creep modulus (after 1000 hour)	45	MPa	ISO 899
Notched Izod at +23 °C	42	KJ/m <sup>2</sup>	ISO 180 A
Notched Izod at -30 °C	5	KJ/m <sup>2</sup>	ISO 180 A
Notched Tensile impact strength	86	KJ/m <sup>2</sup>	ISO 8256/1B
Elongation at break	8.4	%	ISO 8256/1B
Maximum tension	16	MPa	ISO 8256/1B
Hardness shore D	45	-	ISO 868

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NOTICE: All tests were performed under laboratory conditions and standard testing methods. The data are intended as a general guide only and do not necessarily represent results that might be obtained elsewhere. The use of this product must be guided by the user's own methods for selection of proper formulation. RAYOMAND disclaims any responsibility for misuse or misapplication of this product. RAYOMAND makes no warranty of merchantability and there is no warranty that goods supplied shall be fit for any particular purpose. RAYOMAND liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited. The customer is responsible for determining whether products and information in this document are appropriate for the customer's use.

Ball indentation test			
Applied load	49	N	ISO 2039-1
Ball indentation hardness	16	MPa	ISO 2039-1
ESCR	3	h	SABTEC Method

\* Typical values; not to be considered as product specification.

Note: Film properties have been obtained at 45  $\mu\text{m}$  with a BUR of 3.

### Processing

LI2200 is a grade with good toughness and good biaxial shrink properties. The material contains on additives, has a low energy consumption during processing and a good draw down ability.

### Packaging

Supplied in pellet form and can be packaged in 25 kg bags, 1 ton semi bulk or 17 ton bulk.

### Food contact

LI2200 meets the relevant requirements of plastics directive 2002/72/EC (06-08-2002) and its amendments till directive 2008/39EC relating to plastic materials and articles intended to come into contact with foodstuffs.

### Pharmaceutical Application

LI2200 meets the requirements of the European pharmacopeia version 6 section 3.1.5 for pharmaceutical application.

### Conveying

Conveying equipment should be designed prevent accumulation of fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used:

1. be equipped with adequate filters
2. is operated and maintained in such a manner to ensure no leaks develop
3. that adequate grounding exists at all times

We further recommended that good housekeeping will practiced throughout the facility

### Storage

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight and/or heat during storage. The storage location should also be dry, dust free and the ambient temperature should not exceed 50  $^{\circ}\text{C}$ . It is also advisable to process polyethylene resins (in pelletized or powder form) within 6 months after delivery, this because also excessive aging of polyethylene can lead to a deterioration in quality.

### Handling

Minimal protection to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapors.

### Combustibility

Polyethylene resins will burn when supplied adequate heat and oxygen. They should be handled and stored away from contact with direct flames and/or other ignition sources.