شرکت پلیمر آریاساسول
ARYA SASOL POLYMER COMPANY
سهامی عام

Product Data Sheet

LIM 1922

Low Density Polyethylene

Product Description

LIM 1922 is a low-density polyethylene, offering a unique combination of consistent process-ability, flexibility and toughness. This grade developed for application that require a good balance between flow properties and mechanical properties. LIM 1922 has been manufactured under SABTEC licensed technology.

General Information

Status	Commercial: Active
Application	Injection molded articles (toys, household articles, caps, lids, etc.)- Base resin for master-batches.
Form(s)	Pellet
Attribute	Good toughness- Easy process ability- Producing flexible injection molded articles.
Additives	Antioxidant: Yes Antiblock : No Slip Agent :No

Typical Properties	Typical Value [1]	Unit	Test Method
Physical			
High Load Melt Flow Index (190 °C/ 2.16 kg)	22	dg/min	ISO 1133
Density [2]	919	kg/m^3	ISO 1183 (A)
Mechanical [3]			
Stress at Yield	8	MPa	ISO 527-1,2
Stress at Break	7	MPa	ISO 527-1,2
Strain at Break	400	%	ISO 527-1,2
Tensile Modulus	175	MPa	ISO 527-1,2
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^2	ISO 180 A
Notched Izod at -30 °C	5	kJ/m^2	ISO 180 A
Tensile-Impact strength (Notched, Type 1, Method 1B, -30°C)	86	kJ/m^2	ISO 8256/1B

Hardness Shore D	45	-	ISO 868
Ball Indentation Hardness	16	MPa	ISO 2039-1
ESCR	3	hr.	SABTEC Method
Thermal [3]			
Deflection Temperature Under Load (0.45 MPa)	39	°C	ISO 75
Vicat Softening Temperature (Method A/10N)	82	°C	ISO 306
Melting Temperature	105	°C	ISO 3146
Melting Enthalpy	104	J/g	ISO 3146

Recommended Process Conditions [5]

Extruder temperature profile: 180-210 °C Mold temperature: 20-40 °C

1. Typical values: these are not to be construed as specifications.
2. The density parameter was determined on compression-molded specimens, which were prepared in accordance with procedure C of ASTM D4703, Annex A1.
3. Properties are based on compression-molded specimens, which were prepared in accordance with procedure B of ASTM D4703, Annex A1, using 100% LIM1922 resin.
4. Please note that, these processing conditions are recommended by producer only for 100 LIM1922 resin (not in the case of blending with any other compatible material), but because of the many particular factors which are outside our knowledge and control, and may affect the use of product, no warranty is given.

Further Information

Health and Safety

The resin is manufactured to the highest standards, but special requirements apply to certain applications such as food end-use contact and direct medical use. Specific information on regulatory compliance can be requested via customer.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation may have an unpleasant odor. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapors. Legislation on the control of emissions and pollution prevention should be observed. Workers should be protected from the possibility of skin or eye contact with molten polymer.

The resin will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. While burning, the resin contributes high heat and may generate a dense black smoke.

Recycled resins may have previously been used as packaging for, or may have otherwise been in contact with, hazardous goods. Converters are responsible for taking all necessary precautions to ensure that recycled resins are safe for continued use.

The detailed information about safety, handling, individual protection and waste disposal is provided in the relevant Safety Data Sheet. Additional specific information can be requested via customer.

Conveying

Conveying equipment should be designed to prevent accumulation of fines and dust particles. These particles can, under certain conditions pose an explosion hazard. We recommend that the conveying system will be equipped with adequate filters and be operated and maintained in the way that ensure no leaks develop.

Storage

Polyethylene resins should be protected from direct sunlight and/or heat during storage. The storage location should also be dry, dust free and the storage temperature should not exceed 50°C. It is also advisable to process polyethylene resins (in pelletized or powder from) within 6 months after delivery, because excessive aging of

polyethylene can lead to a deterioration in quality. Arya Sasol Polymer Company would not give any warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance.

The information provided in this Product Data Sheet has been based upon the current level of knowledge and experience. They are not to be interpreted as a warranty for specific product characteristics. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. Customer is responsible for determining whether the products and the information in this document are appropriate for customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Seller assumes no obligation or liability for the information in this document.

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