



ASPC

**Process Optimization**Doc  
Name:Product Data sheet - LDPE- Low Density Polyethylene  
**LTH 1922**

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Doc No.

TEC-PRO-PDS-007

Rev: 4

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## Typical Data

| Properties                                     | Value | unit              | Test method   |
|--|-------|-------------------|---------------|
| <b>Polymer Properties</b>                      |       |                   |               |
| MFI (190 °C /2 .16 Kg )                        | 22    | dg/min            | ISO 1133      |
| MFI (190 °C /5 Kg )                            | 75    | dg/min            | ISO 1133      |
| MVR (190 °C /2 .16 Kg )                        | 29    | ml/10min          | ISO 1133      |
| MVR (190 °C /5 Kg )                            | 98    | ml/10min          | ISO 1133      |
| Density  | 919   | Kg/m3             | ISO 1183 (A)  |
| <b>Thermal Properties</b>                      |       |                   |               |
| Heat deflection temperature at 0.45MPa (HDT/B) | 39    | °C                | ISO 75        |
| Vicat softening temperature at 10N (VST/A)     | 82    | °C                | ISO 306       |
| Melting Point                                  | 105   | °C                | DIN 53765     |
| Enthalpy change                                | 104   | j/g               | DIN 53765     |
| <b>Mechanical properties</b>                   |       |                   |               |
| 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       |
| <b>Ball indentation test</b>                   |       |                   |               |
| Applied load                                   | 49    | N                 | ISO 2039-1    |
| Ball indentation hardness                      | 16    | MPa               | ISO 2039-1    |
| <b>ESCR</b>                                    |       |                   |               |
|  | 3     | h                 | SABTEC Method |
| <b>Additive</b>                                |       |                   |               |
| Antioxidant                                    |       |                   |               |

**Application**

LTH 1922 is specially developed for applications that require a good balance between flow properties and mechanical properties, e.g. toys, household articles, clamping lids.

**General information**

LTH 1922 has been manufactured using SABTEC licensed technology.

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### Packaging

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

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### Food packaging

The above mentioned grade 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

The above mentioned grade 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 0C. 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 .in burning; polyethylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water and mist preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.