



## LOW-DENSITY POLYETHYLENE LIM1922

"LIM1922" is a low-density polyethylene, offering a unique combination of consistent processability, flexibility and toughness. This grade is developed for applications that require a good balance between flow properties and mechanical properties. LIM 1922 has been manufactured under SABTEC-licensed technology.

### Producer:

Arya Sasol Petrochemical Company

| NO | Property                                                    | Value | Units                      | Test Method   |
|----|-------------------------------------------------------------|-------|----------------------------|---------------|
| 1  | High Load Melt Flow Index (190 °C/ 2.16 kg)                 | 22    | dg/min                     | ISO 1133      |
| 2  | Density                                                     | 919   | Kg/m <sup>3</sup>          | ISO 1183 (A)  |
| 3  | Stress at Yield                                             | 8     | MPa                        | ISO 527-1,2   |
| 4  | Stress at Break                                             | 7     | MPa                        | ISO 527-1,2   |
| 5  | Strain at Break                                             | 400   | %                          | ISO 527-1,2   |
| 6  | Tensile Modulus                                             | 175   | MPa                        | ISO 527-1,2   |
| 7  | Creep Modulus (After 1 hour)                                | 80    | MPa                        | ISO 899       |
| 8  | Creep Modulus (After 1000 hour)                             | 45    | MPa                        | ISO 899       |
| 9  | Notched Izod at +23°C                                       | 42    | KJ/m <sup>2</sup>          | ISO 180 A     |
| 10 | Notched Izod at -30 °C                                      | 5     | KJ/m <sup>2</sup>          | ISO 180 A     |
| 11 | Tensile-Impact strength (Notched, Type 1, Method 1B, -30°C) | 86    | KJ/m <sup>2</sup>          | ISO 8256/1B   |
| 12 | Hardness Shore D                                            | 45    | -                          | ISO 868       |
| 13 | Ball Indentation Hardness                                   | 16    | MPa                        | ISO 2039-1    |
| 14 | ESCR                                                        | 3     | hr.                        | SABTEC Method |
| 15 | Deflection Temperature Under Load (0.45 MPa)                | 39    | °C                         | ISO 75        |
| 16 | Vicat Softening Temperature (Method A/10N)                  | 82    | °C                         | ISO 306       |
| 17 | Melting Temperature                                         | 105   | °C                         | ISO 3146      |
| 18 | Melting Enthalpy                                            | 104   | J/g                        | ISO 3146      |
| 19 | Extruder temperature profile: 180-210 °C                    |       | Mold temperature: 20-40 °C |               |

### Applications:

- Injection molded articles (toys, household articles, caps, lids, etc.)-Base resin for master-batches.

