

Producer: Arya Sasol Polymer Company (ASPC) / Iran

## HDPE HCH 5110

### Description:

**HCH 5110** has been manufactured using Basell Lupotech G ® licensed technology and the appropriate manufacturing parameters and hence is equivalent to **Basell Lupolen® HDPE 5121B** grade.

### Application:

**HCH 5110** is suitable for Bags, Products for Use in Property

| PROPERTIES                              | VALUE | UNIT               | TEST METHOD |
|---|-------|--------------------|-------------|
| <b><u>Physical Properties</u></b>       |       |                    |             |
| Density (at 27°C)                       | 950   | kg/cm <sup>3</sup> | ISO 1183    |
| MFR (190°C/21.6kg)                      | 10    | dg/min             | ISO 1133    |
| MFR (190°C/2.6kg)                       |       | dg/min             | ISO 1133    |
| MFR (190°C/5kg)                         |       | dg/min             | ISO 1133    |
| Bulk Density                            |       | g/cm <sup>3</sup>  | ISO 60      |
| <b><u>Mechanical Properties</u></b>     |       |                    |             |
| Tensile Modulus                         | 1050  | Mpa                | ISO 527-1   |
| Tensile Strength (MD)                   | 55    | MPa                | ISO 527-1,3 |
| Tensile Strength (TD)                   | 55    | MPa                | ISO 527-1,3 |
| Tensile Strain at Break (MD)            | 580   | %                  | ISO 527-1   |
| Tensile Strain at Break (TD)            | 620   | %                  | ISO 527-1   |
| Tensile Stress at Yield                 | 26    | MPa                | ISO 527-1   |
| Tensile Strain at Yield                 | 10    | %                  | ISO 527-1   |
| Elmendorf tear strength (MD)            | 250   | mN                 | ISO 6383-2  |
| Elmendorf tear strength (TD)            | 800   | mN                 | ISO 6383-2  |
| <b><u>Thermal Properties</u></b>        |       |                    |             |
| HDT, (0,45MPa)                          |       | °C                 | ISO 75A-1   |
| HDT, (1,80MPa)                          |       | °C                 | ISO 57B-1   |
| Melting Point                           |       |                    | ISO 3146    |
| Vicat Temp,(A50,50°C/h,10N)             | 132   | °C                 | ISO 306     |
| Vicat Temp,(A50,50°C/h,50N)             | 127   | °C                 | ISO 306     |
| Notched Tensile Impact Strength,(-30°C) |       | KJ/m <sup>2</sup>  | ISO 8256    |
| <b><u>Hardness</u></b>                  |       |                    |             |
| Ball Indentation Hardness               |       | Mpa                | ISO 2039-1  |
| <b><u>Chemical resistance</u></b>       |       |                    |             |
| EsCR                                    |       | h                  | Basell      |