ARYA SASOL
POLYMER COMPANY

# Packaging Solutions for Liquids

## High Density Polyethylene
## Small Blow Molding Grades

**HBM 5020**
**HBM 5520**

**REACH Certified**
**Food Contact Compliance Certified**

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HDPE is one of the best polymer solutions for producing various packages. Lightweight, recyclability, reasonable price, excellent physical and mechanical properties have led to the broad use of this polymer in the production of bottles and tubes.
Thanks to the unique gas phase technology and chromium catalyst, ASPC produces unique grades of HDPE for the production of various packages and containers using the blow molding process.
HBM 5020 and HBM 5520 are ethylene and 1-hexene copolymers that are used to produce lightweight, tasteless and low odor containers for the following applications:

- Water juice dairy
- Household and industrial chemicals
- Toiletries and cosmetics
- Agricultural chemicals
- Personal care
- Pharmaceuticals
- Automotive parts
- Durable goods
- Packaging of consumer and dangerous goods

**HBM 5020 and HBM 5520 main characteristic**

- Light weight
- Excellent process-ability
- Balance of high stiffness, good impact and temperature resistance
- Very good organoleptic properties
- High line productivity
- Enhanced safety for consumer

## HBM 5020 and HBM 5520 Main Properties

| PROPERTIES | PHYSICAL | | | MECHANICAL | | | | | ESCR |
|---|---|---|---|---|---|---|---|---|---|
| | Density 23°C | Melt Flow Rate | | Tensile Modulus | Tensile Stress at Yield | Tensile Strain at Yield | Tensile Impact Strength; Notched | Ball Indentation Hardness (H132/30) | FNCT |
| | | 190°C, 2.16 kg | 190°C, 21.6 kg | | | | -30°C | | 3.5 MPa, 80°C 2 % Arkopal |
| Test Method | ISO 1183 | ISO 1133-1 | | ISO 527-1, 2 | | | ISO 8256/1A | ISO 2039-1 | ISO 16770 |
| Unit | g/cm³ | g/10 min | | MPa | | % | kJ/m² | MPa | h |
| HBM 5020 | 0.950 | 0.3 | 22 | 1000 | 25 | 9 | 110 | 45 | 6 |
| HBM 5520 | 0.955 | 0.25 | 23 | 1200 | 28 | 9 | 110 | 51 | 4.5 |

## ASPC Grade Naming

**HBM:** High Density PE for Blow Molding Process

| First and Second Digit | Grade Typical Density (kg/m³) | Third and Fourth Digit | HLMI (g/10min, 21.6 kg at 190°C) |
|---|---|---|---|
| 50 | 950 | 20 | 20 |
| 55 | 955 | | |