PRODUCT DATA SHEET

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Polypropylene Homopolymer

HLR102

Technical support:
Polymer Technology Services Centre
22 Pressburg Road,
Modderfontein, 1609
South Africa

Tel: +27 (0)11 458 0700
Fax: +27 (0)11 458 0734

Sales office:
Sasol Base Chemicals
PO Box 5486
Johannesburg, 2000
South Africa

Tel: +27 (0)10 344 5000
E-mail: polymers@sasol.com

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www.sasol.com

MFR: 5.3 g/10min

Density: 0.905 g/cm³

Features

- Medium flow
- Low water carry-over during the extrusion process
- Particularly suitable for processing on high speed tape extrusion lines
- Suitable for the injection moulding of technical articles requiring good mechanical strength

Applications

Extrusion

- Production of raffia tapes as used in the manufacture of woven fabric
- Block-bottom cement bags
- Sacks and bags
- Flexible intermediate bulk containers (FIBC's)

Injection moulding

- Domestic, industrial and general purpose articles

Additives

- Antioxidant
- Processing stabiliser
- Acid scavenger

Typical properties (not to be construed as specifications)		Value (SI)	Value (English)	Method
Resin Properties	Melt mass-flow rate – MFR (230/2.16)	5.3 g/10min	5.3 g/10min	ISO 1133
	Moulding Shrinkage – S_{Mp} / S_{Mn}	1.5 / 1.4 %	1.5 / 1.4 %	ISO 294-4
Physical Properties	Flexural modulus	1 500 MPa	217 560 psi	ISO 178
	Tensile modulus of elasticity	1 550 MPa	224 810 psi	ISO 527-2
	Tensile stress at yield	34 MPa	4 930 psi	ISO 527-2
	Tensile strain at yield	9.0 %	9.0 %	ISO 527-2
	Tensile strain at break	>50 %	>50 %	ISO 527-2
	Charpy notched impact strength (23°C)	3.5 kJ/m²	1.7 ft·lbf/in²	ISO 179-1
	Ball indentation hardness – HB	72 N/mm²	10 440 psi	ISO 2039-1
Thermal Properties	Melting temperature – DSC	167°C	332°F	ISO 11357-3
	Heat deflection temperature – HDT / A (1.8 MPa)	53°C	127°F	ISO 75-2
	Heat deflection temperature – HDT / B (0.45 MPa)	85°C	185°F	ISO 75-2
	Vicat softening temperature – VST / A120 (10 N)	154°C	309°F	ISO 306

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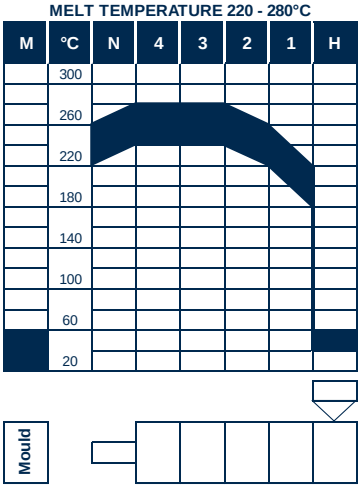
Typical processing conditions – HLR102

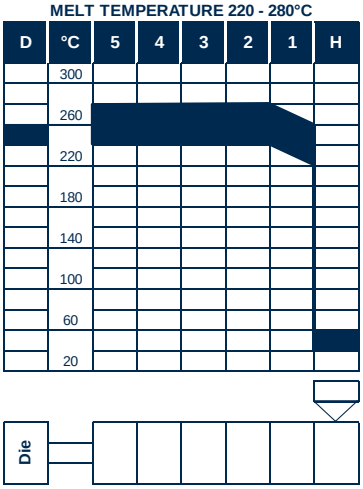
Injection moulding

MELT TEMPERATURE 220 - 280°C



Extrusion

MELT TEMPERATURE 220 - 280°C



Handling

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal protection to prevent possible mechanical or thermal injury to the eyes. Fabrication areas should be ventilated to carry away fumes or vapours. Please consult the material safety data sheet (SDS) for more detailed information.

Storage and Shelf Life

As ultraviolet light may cause a change in material properties, all resins should be protected from direct sunlight during storage. If stored in cool (<25˚C), dry area with low ambient light levels, polyolefin resins are expected to maintain their original material and processing properties for at least 12 months from production.

Combustibility

Polypropylene 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, polypropylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water, water mist being preferred. In enclosed areas, fire fighters should be provided with self contained breathing apparatus.

Conveying

Conveying equipment should be designed to prevent accumulation of fines and dust particles that are contained in all polypropylene resins. The fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used:

- be equipped with adequate filters
- is operated and maintained in such a manner to ensure no leaks develop
- that adequate grounding exists at all times

It is further recommended that good housekeeping is practiced throughout the facility.

Regulatory & Legal Compliance

This material complies with FDA regulation 21 CFR 177.1520 when used unmodified and according to good manufacturing practices for food contact applications. Refer to applicable food contact compliance statement which is available on request.

This material is not medically approved and should therefore not be used in any such application.