# PRODUCT DATA SHEET

PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP

## Polypropylene Homopolymer

# HNR100

**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

**Date of issue:** April 2017

www.sasol.com

## MFR: 12 g/10min

## Density: 0.905 g/cm$^3$

### Features
- High flow
- Suitable for general injection moulded products where rigidity and shorter cycle times are required

### Applications
**Injection moulding**
- Caps and closures
- Household and domestic articles
- Cosmetic and toiletry components
- Outdoor furniture

### Additives
- Antioxidant
- Processing stabiliser
- Acid scavenger

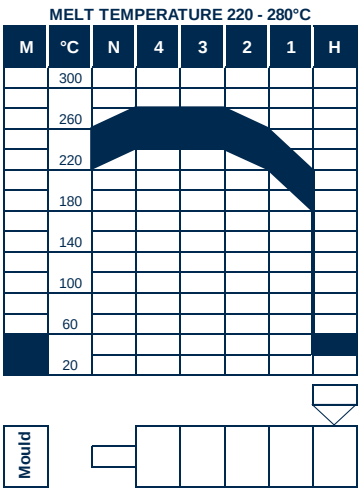
| Typical properties (not to be construed as specifications) | | Value (SI) | Value (English) | Method |
|---|---|---|---|---|
| **Resin Properties** | Melt mass-flow rate – MFR (230/2.16) | 12 g/10min | 12 g/10min | ISO 1133 |
| | Moulding Shrinkage – $S_{Mp}$ / $S_{Mn}$ | 1.4 / 1.3 % | 1.4 / 1.3 % | 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 | 8.5 % | 8.5 % | ISO 527-2 |
| | Tensile strain at break | >50 % | >50 % | ISO 527-2 |
| | Charpy notched impact strength (23°C) | 2.8 kJ/m$^2$ | 1.4 ft·lbf/in$^2$ | ISO 179-1 |
| | Ball indentation hardness – HB | 70 N/mm$^2$ | 10 150 psi | ISO 2039-1 |
| **Thermal Properties** | Melting temperature – DSC | 168°C | 334°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 |

# PRODUCT DATA SHEET

PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP PP

## Typical processing conditions – HNR100

### Injection moulding




## 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

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.

## 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.

**This publication contains information provided in good faith and is indicative, based on Sasol's current knowledge on the subject. No guarantee or warranty is intended or implied. We reserve the right to make changes as a result of technological progress or development. Any information, including suggestions for use of products, should not preclude experimental testing and verification, to ensure the suitability of a product for each specific application. Users must also abide by local and international laws and obtain all necessary permits when required to do so. Prior to handling a hazardous product, consult it's safety data sheet. In case of questions or queries, please contact Sasol through our customer service channels. All products purchased from Sasol Chemicals are subject to the terms and conditions as set out in the contract, order confirmation and/or bill of lading.**