Product data sheet

HSV103

Polypropylene homopolymer

sasol
reaching new frontiers

Sasol Polymers
Polyolefins Business

Sasol Polymers PP: HSV103

MFR: 30g/10min

Features

- High flow
- Narrow molecular weight distribution
- Offers easy extrusion processability when used for producing:
  - Spunbonded non-woven materials
  - BCF carpet yarn on in-line or two stage spin / draw / wind or short spin / warp draw / wind processes
  - Continuous filament (CF) on multi position spin / draw / wind processes

Applications

Extrusion

- Spunbond fabric for industrial applications (roofing membranes, geotextiles)
- Spunbond fabrics for hygiene applications (nappy liners, medical gowns and masks)
- Carpet yarns
- Extrusion coating of woven PP cloth
- Hair braids

Additives

- High processing stabilisation
- Anti-gas fading

Material properties (typical values not to be construed as specifications)

	Value	Unit	Test method
Rheological properties			
Melt mass-flow rate - MFR (230/2.16)	30	g/10min	ISO 1133
Mechanical properties			
Flexural modulus	1350	MPa	ISO 178
Tensile modulus of elasticity	1400	MPa	ISO 527-2/1A/1
Tensile stress at yield	32	MPa	ISO 527-2/1A/50
Tensile strain at yield	8.5	%	ISO 527-2/1A/50
Tensile strain at break	>50	%	ISO 527-2/1A/50
Charpy notched impact strength (23°C)	2.5	kJ/m^2	ISO 179-1/1eA
Ball indentation hardness - HB	68	N/mm^2	ISO 2039-1
Thermal properties			
Melting temperature - DSC	163	°C	ISO 11357-3
Heat deflection temperature - HDT/A (1.8 MPa)	52	°C	ISO 75-2
Heat deflection temperature - HDT/B (0.45 MPa)	83	°C	ISO 75-2
Vicat softening temperature - VST/A 120 (10N)	152	°C	ISO 306
Vicat softening temperature - VST/B 120 (50N)	88	°C	ISO 306
Other properties			
Density	0.905	g/cm^3	ISO 1183-1

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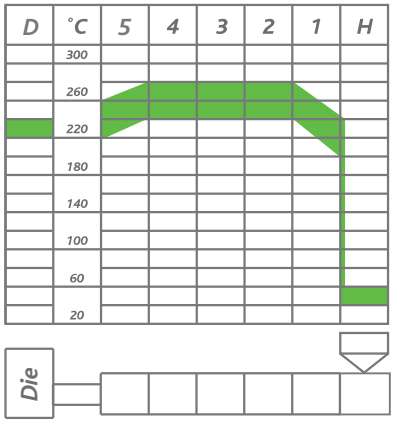
Typical processing conditions

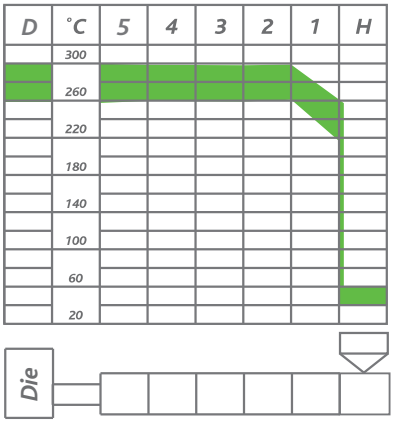
Fibre Extrusion

Melt temperature 220 - 280°C



Extrusion Coating

Melt temperature 240 - 300°C



Packaging

Sasol Polymers polyolefin resins are supplied in pellet form packed in 25kg bags. Alternative packaging modes for polypropylene resins are available for selected grades.

Handling

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses and heat resistant gloves are suggested as a minimal precaution to prevent possible mechanical or thermal injuries to the eyes and skin. Fabrication areas should be ventilated to carry away fumes or vapours.

Conveying equipment should be designed to prevent accumulation of fines or dust particles that are contained in all polyolefin resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. Sasol Polymers recommend 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*

Sasol Polymers further recommend that good housekeeping be practised throughout the manufacturing facility. Polymer pellets may pose a slippage hazard if spilled.

Storage

As ultraviolet light may cause a change in the material properties, all polyolefin resins should be protected from direct sunlight during storage. Under cool, dry, dark conditions Sasol Polymers polyolefin resins are expected to maintain their original material and processing properties for at least 18 months.