

SABIC® PP 5051P

POLYPROPYLENE HOMOPOLYMER

DESCRIPTION

SABIC® PP 5051P is a polypropylene homopolymer resin for yarn extrusion. The yarn made from this resin exhibits excellent mechanical properties & low water carryover.

TYPICAL APPLICATIONS

SABIC® PP 5051P can be used to produce woven sacks, woven fabric, monofilament, box strap, rope & straw. This product is not intended for use in medical and pharmaceutical applications.

TYPICAL PROPERTY VALUES

Revision 20230421

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
@ 230°C/2.16 kg	2.2	g/10 min	ASTM D1238
Density	905	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES ^{(1) (2)}			
Tensile Strength at Yield	33	MPa	ASTM D638
Tensile Elongation at Yield	9	%	ASTM D638
Tensile Strength at Break	19	MPa	ASTM D638
Tensile Elongation at Break	155	%	ASTM D638
Flexural Modulus (1% Secant)	1300	MPa	ASTM D790 A
Flexural Strength	34	MPa	ASTM D790
Izod Impact , Notched, 23 °C	3.0	kJ/m ²	ISO 180
Rockwell Hardness, R-Scale	98	-	ASTM D785
THERMAL PROPERTIES ^{(1) (2)}			
Vicat Softening Temperature	152	°C	ASTM D1525

(1) Typical values only, not to be construed as specification limits

(2) Test specimen preparation method : Pursuant to ASTM D4101

PROCESSING CONDITIONS

Typical processing conditions for 5051P are:

Recommended extrusion temperature : 250 °C

Recommended stretching temperature : 155 °C

Recommended stretching ratio : 4 – 6

STORAGE AND HANDLING

Polypropylene resin should be stored in a manner to prevent a direct exposure to sunlight and/or heat. The storage area should also be dry and preferably do not exceed 50°C. SABIC would not give warranty to bad storage conditions which may lead to quality deterioration such as color change, bad smell and inadequate product performance. It is advisable to process PP resin within 6 months after delivery.



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