

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/m³	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/m²	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.

© 2024 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™



DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

