Manufacturer website: https://www.irpc.co.th/en/

POLIMAXX

TECHNICAL DATA SHEET
REV20221010

K4527GR

Polypropylene Random Copolymer (RCPP) /
High Transparency Medical Injection Grade

PRO-EFFICIENT established new performance and efficiency benchmarks. **K4527GR i**s non-toxic substance Random Copolymer grade comply with medical certificate for raw material feature high transparency and high productivity which dedicate to **LIFE-PRO** line .

PRODUCT DESCRIPTION

K4527GR is a Medical Grade Polypropylene Random Copolymer (RCPP) with the characteristic of high transparency and high melt flow ability. It is designed for injection molding processing.

INDUSTRY

- Medical Devices
- Syringes
- Labwares

PRODUCT FEATURE

- Medical Grade
- High Transparency
- High gloss
- Natural Color (OB Free)
- Ethylene Oxide Sterilization
- Gamma ray Sterilization

REGULATION COMPLIANCE

- FDA US 21 CFR 177.1520
- Commission Regulation (EU) No. 10/2011
- RoHS Directive 2011/65/EU
- REACH Regulation (EC) No. 1907/2006
- Halal Certificate
- USP Class VI
- EP 3.1.6

PHYSICAL PROPERTY	TEST METHOD	UNIT	VALUE
Melt Flow Rate (230°C/2.16 kg)	ASTM D1238	g/10 min	27
Density (23°C)	ASTM D792	g/cm³	0.90
Mold Shrinkage	IRPC	%	1.2 – 1.7
MECHANICAL PROPERTY			
Tensile Strength at Yield (3.2 mm, 50 mm/min)	ASTM D638	MPa	30
Elongation at Yield (3.2 mm, 50 mm/min)	ASTM D638	%	13
Flexural Modulus (1% Secant, 3.2 mm, 1.3 mm/min)	ASTM D790	MPa	1,150
Izod Notched Impact Strength (3.2 mm, 23°C)	ASTM D256	J/m	50
HARDNESS PROPERTY			
Rockwell Hardness (3.2 mm)	ASTM D785	R Scale	91
THERMAL PROPERTY *Unannealed			
Heat Distortion Temperature (3.2 mm, 0.455 MPa)	ASTM D648	°C	80
OPTICAL PROPERTY			
Haze (1 mm)	ASTM D1003	%	8

Conversion (1 MPa = 10.2 kgf/cm^2 | 1 J/m = 0.1 kgf-cm/cm)

Remark: The values presented above are typical laboratory, not to be construed as specifications and may vary within moderate ranges. The applicability or accuracy of this information or the suitability of our products cannot be guaranteed because users' conditions of use are beyond our control.

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PROCESSING TECHNIQUE

Cylinder Temperature	210 - 240 °C
Mold Temperature	50 - 80 °C
Injection Pressure	30 - 80 % of maximum pressure
Holding Pressure	Relative to injection pressure
Back Pressure	0 - 20% of maximum pressure
Injection Speed	Low to medium of maximum pressure

*However, the actual processing conditions depend on mold design, power of machine, equipment and other environments.

PRODUCT PACKAGING

- 25 kg loose bag
- 25 kg stretch wrap on palletized
- 750 kg Jumbo bag

For further information, contact IRPC's Sales repesentative.

STORAGE

The resin should be stored in a dry location with good housekeeping practices during storage, transferring and handling. Process enclosures and adequate ventilation should be used to avoid excessive dust accumulation. Resin should be protected from direct sunlight, temperatures above 38°C (100°F) and high atmospheric humidity during storage. Higher storage temperatures may reduce the storage time. The container should be kept closed to prevent contamination. For the additional recommended storage conditions, please refer to SDS.

SAFETY

This product is not classified as hazardous material for more information please refer to safety data sheet.

RECYCLING

It is an undisputed fact that the product can be recycled or disposed of without any problem.

DISCLIAMER

The data indicated above are the results of our investigations, knowledge and correspond to the state of the art as of the date of publication and the data refer to the state of the laws at the date of issue and this information expires after a break in delivery lasting more than 12 months or in case of regulatory changes. This statement is not intended and should not be construed as specification, warranty or representation of any sort for which IRPC would be legal responsibility. The applicability or the accuracy of this statement or the suitable of our products cannot be guaranteed because the conditions of use on the part our uses are beyond our control. IRPC gives no guarantees or makes no warranties which extend beyond the description above herein. Nothing herein shall constitute any implied guaranty or warranty of merchantability or fitness for a particular purpose. In the case that IRPC's products are used in combination with other materials, no liability can be accepted. When not utilized in combination with any third-party products, the information included above refers only to our products. Please ask IRPC for a new information if needed. All terms and conditions regarding the supply of IRPC's products shall be subject to IRPC's Policy, in the case of a dispute, the Company's decision is final and is not subject to any appeal.

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