POLIMAXX K4527GR

IRPC Public Company Limited - *Polypropylene Random Copolymer*

General Information

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

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• Ethylene Oxide Sterilizable • High Clarity • High Flow	• High Gloss • Odorless • Radiation Sterilizable	• Random Copolymer
Uses	• Labware	• Medical Devices	• Medical/Healthcare Applications
Agency Ratings	• EC 1907/2006 (REACH) • EP Monograph 3.1.6	• EU 2011/65/EC • EU No 10/2011	• FDA 21 CFR 177.1520 • USP Class IV
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity [2]	0.902		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	27	g/10 min	ASTM D1238
Molding Shrinkage	1.2 to 1.7	%	Internal Method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3] (Yield, 0.126 in)	4350	psi	ASTM D638
Tensile Elongation [3] (Yield, 0.126 in)	13	%	ASTM D638
Flexural Modulus - 1% Secant [4] (0.126 in)	167000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.126 in)	0.94	ft·lb/in	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 0.126 in)	91		ASTM D785

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed, 0.126 in)	176	°F	ASTM D648
Optical	**Nominal Value**	**Unit**	**Test Method**
Haze (39.37 mil)	8.00	%	ASTM D1003

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	410 to 464	°F
Middle Temperature	410 to 464	°F
Front Temperature	410 to 464	°F
Mold Temperature	122 to 176	°F
Injection Rate	Slow-Moderate	

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 23°C

[3] 2.0 in/min

[4] 0.051 in/min