POLIMAXX

TECHNICAL DATA SHEET
REV20240610

K4510B

Polypropylene Random Copolymer (RCPP) /
High Transparency for Injection Molding

PRO-EFFICIENT
Ingredient Mark established new performance and efficiency benchmarks.
K4510B is the high transparency conventional Random Copolymer without optical brightener and lower the energy consumption during processing as well as benefiting the recycling progress in the **LIFE-PRO & ECO-PRO** line.

PRODUCT DESCRIPTION

K4510B is a Polypropylene Random Copolymer (RCPP) with the characteristic of high transparency and good processibility. It is designed for injection molding processing such as food container packaging and household & houseware product.

VALIDATED
• MILLAD® NX® 8000 ENABLES AN AVERAGE OF 10% ENERGY SAVINGS FOR PRODUCTION OF CLARIFIED PP PARTS
UL.COM/ECV

INDUSTRY

- Clear food containers
- Housewares
- Caps and Closures

PRODUCT FEATURE

- High Transparency
- High Gloss
- Improved color shade without Optical Brightener (OB Free)
- Good Processability

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

PHYSICAL PROPERTY	TEST METHOD	UNIT	VALUE
Melt Flow Rate (230°C/2.16 kg)	ASTM D 1238	g/10 min	10
Density (23°C)	ASTM D 792	g/cm³	0.90
Mold Shrinkage	IRPC	%	0.7 – 1.5
MECHANICAL PROPERTY			
Tensile Strength at Yield (3.2 mm, 50 mm/min)	ASTM D 638	MPa	31
Elongation at Yield (3.2 mm, 50 mm/min)	ASTM D 638	%	13
Flexural Modulus (1% Secant, 3.2 mm, 1.3 mm/min)	ASTM D 790	MPa	1,150
Izod Notched Impact Strength (3.2 mm, 23°C)	ASTM D 256	J/m	70
HARDNESS PROPERTY			
Rockwell Hardness (3.2 mm)	ASTM D 785	R Scale	91
THERMAL PROPERTY (Unannealed)			
Heat Distortion Temperature (3.2 mm, 0.455 MPa)	ASTM D 648	°C	85
OPTICAL PROPERTY			
Haze (1 mm)	ASTM D 1003	%	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.

IRPC Public Company Limited | 555/2 Energy Complex, Building B, 6th Floor, Vibhavadi Rangsit Rd., Chatuchak, Bangkok 10900 THAILAND.
HTTPS://POLIMAXX.IRPC.CO.TH | TEL : +66(0) 765-7000

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

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PROCESSING TECHNIQUE

Cylinder Temperature	190 - 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 representative.

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.

DISCLAIMER

The data indicated above are the results of IRPC's examinations, knowledge and correspond to the state of the art as of the date of publication and the data refers to the state of the related laws and regulations as of the date of issue. This information will expire after a break in delivery lasting more than 12 (twelve) months or in case of regulatory changes. This "Statement" is provided and subjected to IRPC's terms and conditions and IRPC reserves the right, in its sole discretion, to amend the product specification(s) at any time. This "Statement" is not intended and shall not be construed as specification, warranty, expressed or implied, or representation of any kind that IRPC would have any legal responsibility or liability. The applicability, accuracy, completeness, reliability, usability, availability, validity with respect to the data or information under this Statement and/or the suitability of IRPC's products cannot be guaranteed for any purpose. IRPC gives no guarantees or makes no warranties of any kind, express or implied, including, but not limited to, any warranties of merchantability, satisfactory quality, non-infringement or fitness for a particular purpose, whether arising by operation of law or otherwise. In the case that IRPC's products are used in combination with other materials, no liability admitted. When not utilized in combination with any third-party products, the information mentioned above refers only to IRPC's products. It is the customer's responsibility to inspect and test IRPC's products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer shall be responsible for the appropriate, safe and legal use, processing and handling of IRPC's products. IRPC shall not be liable for any false, inaccurate, inappropriate or incomplete data or information presented on this Statement. Please do not hesitate to ask IRPC for new information if needed. All terms and conditions regarding the supply of IRPC's products shall be subjected to IRPC's Policy. In the event that any dispute arises, IRPC's decision is final and not subject to appeal.

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