

# SPESIN<sup>®</sup> KP211

PBT, Unreinforced, Injection molding

Application  
Auto, E&E

Properties	Measurement condition	Test Method	Unit	Typical value
<b>Physical</b>				
Density		ASTM D792	-	1.31
Shrinkage		ASTM D955	%	1.7~2.1
Water Absorption	23℃, H <sub>2</sub> O, 24hr	ASTM D570	%	0.08
<b>Mechanical</b>				
Tensile Strength at Break	(3.2mm) 50 mm/min	ASTM D638	MPa	58
Elongation at Break	(3.2mm) 50 mm/min	ASTM D638	%	20
Flexural Strength	(3.2mm) 5 mm/min	ASTM D790	MPa	96
Flexural Modulus	(3.2mm) 5 mm/min	ASTM D790	MPa	2,550
Izod Impact Strength	(6.4mm)	ASTM D256		
(Notched)	23 ℃		J/m	50
	-30 ℃		J/m	-
<b>Thermal</b>				
Melting Point	20 ℃/min	ASTM D3418	℃	224
Heat Deflection Temperature	0.45 MPa	ASTM D648	℃	155
	1.82 MPa	ASTM D648	℃	55
Coefficient of linear expansion		ASTM D696	× 10 <sup>-4</sup> cm/cm·℃	-
Flammability	(0.7mm)	UL94	Class	HB
<b>Electrical</b>				
Comparative Tracking Index (CTI)		UL 746 A	PLC	1
Dielectric Strength	(1mm)	IEC 60243	kV/mm	20
Volume Resistivity		IEC 60093	Ω·cm	13
Surface Resistivity		IEC 60093	Ω/sq	-

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The values of each item in this document provide general information about the product and may be different from actual ones as reference dimensions for customer's convenience of material selection. This information cannot be viewed as a Certificate of Analysis(COA) issued by the Company to customers, nor can it be used as a basis for legal disputes such as lawsuits. The value of each item cannot be compared with the measurement result of other environment, equipment and method because it is measured under the specific condition using the existing measurement equipment and external authorized agency equipment. The characteristics described above are subject to change, and you are solely responsible for the determination and use of this product. In addition, these materials do not apply when adding pigments and other additives to the product depending on the customer's purpose of use. The value of the shrinkage factor in the above data is the value measured under the specific injection condition using our standard test piece and may be changed according to other test piece (product) and condition. Therefore, it is the customer's responsibility to apply the correction by considering the required characteristics of the molded product, the mold design condition, the product shape, the injection conditions, etc. Even if there is a difference in the shrinkage rate of the product in the mold manufactured by applying this shrinkage ratio, we also assume no guarantee or liability.

## Processing Guide (Injection Molding)

Drying Temperature(°C)	100~120	(Dehumidifying Dryer)		
Drying Time(hr)	3~5			
Processing Moisture Contents(%)	≤ 0.04			
Cylinder Temperature(°C)	Nozzle	Front	Middle	Rear
	235~250	235~255	230~245	220~235
Mold Temperature(°C)	30~70			

## Contact Us

[www.kolonplastics.com](http://www.kolonplastics.com)

### Domestic Sales

TEL : +82-2-3677-3621 / FAX :+82-2-3677-3556

### Domestic Sales(Yeongnam)

TEL : +82-53-253-3792 / FAX : +82-53-253-3793

### Global Sales

TEL : +82-2-3677-3623 / FAX : 02-3677-3558

### R&D Division

TEL : +82-54-421-1490 / FAX : +82-54-421-1449

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