

ISO Property

INFINO	Grade	SC-1220R
	Resin Type	PC

General, Home Appliances

Item	Measuring Method	Condition	Unit	Value
Physical				
Specific Gravity	ISO 1183	Natural or representative color	-	1.20
Melt Flow Index	ISO 1133	300°C, 1.2kg	g/10min	22
Mold Shrinkage(MD)	ISO 294-4	Flow at 2mm(MD)	%	0.5~0.7
Mold Shrinkage(TD)	ISO 294-4	X-Flow at 2mm(TD)	%	0.5~0.7
Mechanical				
Tensile Strength at Yield	ISO 527	50mm/min	MPa	64
Tensile Strain at break	ISO 527	50mm/min	%	110
Tensile Modulus	ISO 527	50mm/min	MPa	2300
Tensile Strength at break	ISO 527	50mm/min	MPa	64
Flexural Strength	ISO D790	2mm/min	MPa	92
Flexural Modulus	ISO D790	2mm/min	MPa	2300
Izod Impact Strength(notched)	ISO 180 1A	at 23°C, 4mm	KJ/m ²	65
Charpy Impact Strength(V-notched)	ISO 180 1A	at 23°C, 4mm	KJ/m ²	60
Rockwell Hardness	ISO 2039-2	R-Scale	-	120
Thermal				
Heat Deflection Temperature(Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	123
Heat Deflection Temperature(Unannealed)	ISO 75-2	0.45MPa, 4.0mm	°C	136
VICAT Softening Temperature	ISO 306	B/50	°C	145
Flammability				
Flammability	UL94	V-2	mm	0.75~3.2

1. The value above is the representative value of the NP or representative color and may have deviation. It can only be used for selecting materials.

2. The value above shall not be regarded as a material specification and cannot be used for molding designs.

Information inserted in this document such as data, statements, representative values, etc. are provided solely for customer convenience. It does not expressly or impliedly guarantee anything regarding the safety or practicability of the (1) materials, (2) products, and/or (3) design that utilizes recommendations or proposals, of LOTTE Advanced Materials. Furthermore, nothing in the contents of this document shall have any legal binding effect, and especially, the representative value is simply for reference and is not a minimum value that has legal binding effect.

Whether materials and/or products of LOTTE Advanced Materials and/or a design that uses or utilizes LOTTE Advanced Materials' recommendations or proposals are (is) compatible with individual uses shall be determined solely by each user and such user shall be solely responsible for any results, including but not limited to, any and all loss and damages incurred due to such uses. Users must implement and verify all testing and analyses for proving the safety and compatibility of final products that have been created or altered by using LOTTE Advanced Materials' materials or products. The data and values inserted and/or contained in this document may be changed due to quality improvement of the product without any prior notification.

※ The last update date : 10/17/2017

ISO Property

INFINO	Grade	SC-1220UR
	Resin Type	PC

General, Lighting & Wiring Device Cover, UV Stabilized

Item	Measuring Method	Condition	Unit	Value
Physical				
Specific Gravity	ISO 1183	Natural or representative color	-	1.2
Melt Flow Index	ISO 1133	300°C, 1.2kg	g/10min	22
Mold Shrinkage(MD)	ISO 294-4	Flow at 2mm(MD)	%	0.5~0.7
Mold Shrinkage(TD)	ISO 294-4	X-Flow at 2mm(TD)	%	0.5~0.7
Mechanical				
Tensile Strength at Yield	ISO 527	50mm/min	MPa	64
Tensile Strain at break	ISO 527	50mm/min	%	110
Tensile Modulus	ISO 527	50mm/min	MPa	2300
Tensile Strength at break	ISO 527	50mm/min	MPa	64
Flexural Strength	ISO D790	2mm/min	MPa	92
Flexural Modulus	ISO D790	2mm/min	MPa	2300
Izod Impact Strength(notched)	ISO 180 1A	at 23°C, 4mm	KJ/m ²	65
Charpy Impact Strength(V-notched)	ISO 180 1A	at 23°C, 4mm	KJ/m ²	60
Rockwell Hardness	ISO 2039-2	R-Scale	-	120
Thermal				
Heat Deflection Temperature(Unannealed)	ISO 75-2	1.8MPa, 4.0mm	°C	123
Heat Deflection Temperature(Unannealed)	ISO 75-2	0.45MPa, 4.0mm	°C	136
VICAT Softening Temperature	ISO 306	B/50	°C	145
Flammability				
Flammability	UL94	V-2	mm	0.75~3.2

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※ The last update date : 10/17/2017

KOCETAL[®] K300

Polyacetal, General Purpose, Injection Molding, Medium Viscosity

Properties	Measurement condition	Test Method	Unit	Typical value
Physical				
Density		ASTM D792	-	1.41
Melt Flow Index	190 °C, 2.16 kg	ASTM D1238	g/10min	9.0
Shrinkage		ASTM D955	%	1.8-2.2
Water Absorption	23 °C, H ₂ O, 24 hr	ASTM D570	%	0.22
Mechanical				
Tensile Strength at Yield (3.2mm)	50 mm/min	ASTM D638	MPa	64
Nominal Strain at Break(3.2mm)	50 mm/min	ASTM D638	%	40
Flexural Strength (3.2mm)	2 mm/min	ASTM D790	MPa	94
Flexural Modulus (3.2mm)	2 mm/min	ASTM D790	MPa	2,500
Izod Impact Strength (6.4mm)		ASTM D256		
(Notched)	23 °C		J/m	67
	-30 °C		J/m	-
Rockwell Hardness	M scale	ASTM D785	-	80
Thermal				
Melting Point	20 °C/min	ASTM D3418	°C	167
Heat Deflection Temperature	1.8 MPa	ASTM D648	°C	110
Coefficient of linear expansion	MD	ASTM D696	× 10 ⁻⁵ cm/cm·°C	13
Flammability (0.8mm)		UL94	Class	HB
Electrical				
Dielectric Strength		IEC 60243	kV/mm	-
Volume Resistivity		IEC 60093	Ω·cm	-
Surface Resistivity		IEC 60093	Ω/sq	10 ¹³ ~ 10 ¹⁴

※ 1Mpa = 10.197162 Kgf/cm², 1J/m = 0.10197 Kgf·cm/cm, (Test specimen Thickness)

Updated: 2017-10-31

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(℃)	80 ~ 90	(Dehumidifying Dryer)		
Drying Time(hr)	3 ~ 5			
Processing Moisture Content(%)	≤ 0.1			
Cylinder Temperature(℃)	Nozzle	Front	Middle	Rear
	180 ~ 200	180 ~ 200	170 ~ 190	160 ~ 180
Mold Temperature(℃)	60 ~ 80			

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Updated: 2017-10-31

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Product Information

Standard Grade

KOCETAL[®]

KOCETAL[™] refers to polyacetal resin of a copolymer type. And is a material of an excellent quality with features of excellent anti-friction/anti-wear, chemical-resistance, heat-resisting stability, precise dimensions and molding abilities. It is mainly applied in gear or roller, and is used for various purposes over the fields of cars, office equipment and living materials. Following POM (Brand name: made by our independent technology development, Kolon Plastics has developed low-VOCs (volatile KOCETAL) products that are organic chemicals) POM resin of the world-best quality with almost no emission during the process of formaldehyde that is harmful to human body for the first time in Korea.

KOCETAL[®] K300

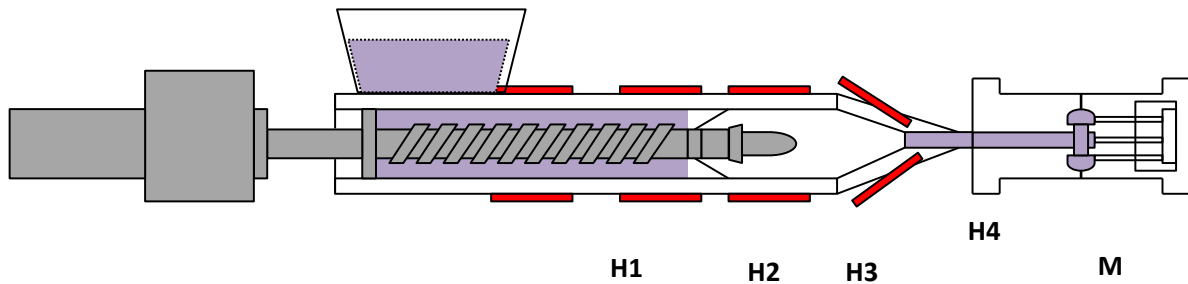
: KOCETAL[®] K300 is a general injection moldings grade with a good mechanical properties for wide

Properties	Test Method	Unit	Value	
Physical				
Specific Gravity	ISO 1183	g/cm ³	1.41	
Melt Index (190°C, 2.16kg)	ISO 1133	g/10min	9.0	
Shrinkage	ISO 294	%	2.0	
Water Absorption	23°C, H ₂ O, 24hr	ISO 62	%	0.59
Mechanical				
Tensile Strength	23°C	ISO 527-1/2	MPa	65
Tensile Elongation	23°C	ISO 527-1/2	%	35
Flexural Strength	23°C	ISO 178	MPa	85
Flexural Modulus	23°C	ISO 178	MPa	2,700
Notched Charpy Impact Strength	23°C	ISO 179/1eA	kJ/m ²	7.0
Rockwell Hardness		ISO 2039-2	M scale	80
Thermal				
Melting Point		ISO 11357-1	°C	166
Heat Deflection Temperature		ISO 75		
	1.8 MPa		°C	95
Flammability(0.8mm)		UL94		HB

Electrical

Dielectric strength	IEC 60243	kV/mm	19
Volume Resistivity	IEC 60093	$\Omega \cdot \text{cm}$	1×10^{14}
Surface Resistivity	IEC 60093	Ω	1×10^{16}

Processing Guide (Injection Molding)



	H1	H2	H3	H4
Cylinder Temperature(°C)	180	190	190	200
Mold Temperature(°C)	60~80			
Limitation of Processing Temp. (°C)	220			
Pre-drying	80~90°C, 3 hrs			

The above-mentioned data was measured by Kolon Plastics, inc., under certain conditions and environment. Therefore, it can not be compared with the data measured under different conditions and environment. And not guaranteed and no warranty. If other additives and pigments are used on this product, The above data cannot be applied. The data can not be used as the evidence of legal proceedings.

Contact

www.kolonplastics.com