## PRODUCT INFORMATION

**Metric & SI unit** 



**TG-61** 

A medium-high viscosity grade for general injection molding. It was reinforced glass fiber, and so suitable for use where it needs the characteristic of wear and abrasion resistance.

Property		Test Method	Units	Value	
Physical					
Specific Gravity		ASTM D792	_	1.65	
Water Absorption	23℃, 60%RH	ASTM D570	%	0.20	
Thermal					
Melt Index	190℃, 2.16 kg	ASTM D1238	g/10min	5.0	
Melting Point	10°C/min	ASTM D3418	${}^{\sim}$	165	
Heat Deflection Temperature	$4.6 \text{kg}_{\text{f}}/\text{cm}^2 (0.5 \text{MPa})$	ASTM D648	$^{\circ}\!$		
	$18.6 \text{kg}_{\text{f}}/\text{cm}^2 (1.8 \text{MPa})$			164	
Coeff. of Linear Thermal Expansion	20∼80℃	ASTM D696	$ ext{x } 10^{\text{-5}} ext{cm/cm/}^{\circ} ext{C}$	13	
Mechanical					
Tensile Strength	23℃	ASTM D638	$kg_f/cm^2$ (MPa)	1,500	(147)
Tensile Elongation	23℃	ASTM D638	%	3	
Flexural Strength	23℃	ASTM D790	$kg_f/cm^2$ (MPa)	2,050	(201)
Flexural Modulus	23℃	ASTM D790	$\times 10^4  \mathrm{kg_f/cm^2}  (\mathrm{MPa})$	9.37	(9,189)
Notched Izod Impact Strength	t 3.2mm	ASTM D256	$kg_f \cdot cm/cm (J/m)$	8.0	(78)
Electrical			_		
Dielectric Constant	$10^6$ Hz	ASTM D150	_	-	
Dielectric Dissipation Factor	$10^6$ Hz	ASTM D150	_	-	
Surface Resistivity		ASTM D257	Ω	$1 \times 10^{16}$	
Volume Resistivity		ASTM D257	Ω · cm	$1 \times 10^{14}$	
Dielectric Strength		ASTM D149	kV/mm	-	
Molding Shrinkage (//Direction)	t2mm,		%	0.2	

## Properties are subject to change with a new knowledge and development.

Although the information and recommendations set forth herein are presented in good faith and believed to be correct, we recommend that persons receiving information must make their own determination as to its suitability to their purposes prior to use. These are based on natural colored products only through relevant test methods and conditions. The KOREA ENGINEERING PLASTICS CO., LTD. assumes no warranty or liability of, express or implied, as to the accuracy or completeness thereof, or any other nature regarding designs, products, or information may be used without infringing the intellectual property rights of others. Further, the data furnished by KEP are not intent to replace any testing required to determine a suitability of any application and set a specification limit for design.

KOREA ENGINEERING PLASTICS CO., LTD. Head Office Tel. 82-2-707-6841/48 Research Center Tel. 82-031-436-1300

## PRODUCT INFORMATION

**Metric & US unit** 



**TG-61** 

A medium-high viscosity grade for general injection molding. It was reinforced glass fiber, and so suitable for use where it needs the characteristic of wear and abrasion resistance.

Property		Test Method	Units	Value	
Physical					
Specific Gravity		ASTM D792	_	1.65	
Water Absorption	23 °C (73°F), 60% RH	ASTM D570	%	0.20	
Thermal					
Melt Index	$190^\circ\!\!\mathrm{C}$ , $2.16~\mathrm{kg}$	ASTM D1238	g/10min	5.0	
Melting Point	10°C/min	ASTM D3418	°C (°F)	165	(329)
Heat Deflection Temperature	$4.6 \mathrm{kg_f/cm^2} (64 \mathrm{psi})$	ASTM D648	°C (°F)		
	$18.6 \text{kg}_{\text{f}} / \text{cm}^2 (264 \text{psi})$		·	164	(327)
Coeff. of Linear Thermal Expansion	20∼80℃	ASTM D696	x 10 <sup>-5</sup> cm/cm/°C	13	
Mechanical					
Tensile Strength	23 °C (73°F)	ASTM D638	$kg_f/cm^2$ ( x $10^3psi$ )	1,500	(21.3)
Tensile Elongation	23°C (73°F)	ASTM D638	%	3	
Flexural Strength	23°C (73°F)	ASTM D790	$kg_f/cm^2$ ( x $10^3psi$ )	2,050	(29.2)
Flexural Modulus	23°C (73°F)	ASTM D790	$\times 10^4 \text{kg}_{\text{f}} / \text{cm}^2 (\times 10^4 \text{ psi})$	9.37	(133.3)
Notched Izod Impact Strength	t 3.2mm (t 0.126in)	ASTM D256	$kg_f \cdot cm/cm(ft \cdot lb/in)$	8.0	(1.5)
Electrical			_		
Dielectric Strength	$10^6$ Hz	ASTM D150	_	-	
Dielectric Dissipation Factor	$10^6$ Hz	ASTM D150	_	-	
Surface Resistivity		ASTM D257	Ω	$1 \times 10^{16}$	
Volume Resistivity		ASTM D257	Ω · cm	$1 \times 10^{14}$	
Dielectric Strength		ASTM D149	kV/mm	-	
Molding Shrinkage (//Direction)	t 2mm, Φ 100mm		%	0.2	

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