SKYPEL

Engineering Thermoplastic Polyester Elastomer

Version: SK-161222
Date Updated: 2018-10-16

Technical Data Sheet

SKYPEL G163D

DESCRIPTION

SKYPEL G163D is a thermoplastic polyester elastomer resin with a medium 63D hardness based on shore D scale is widely used for injection molding and extrusion applications.

Physical properties

Properties	ASTM No	Units	G163D
Hardness	D2240	Shore D	63
Specific Gravity	D792	-	1.21
Water Absorption, 24hr	D570	%	0.3
Mold Shrinkage	D955	%	1.5
Tensile Stress at 5% Strain 1)	D638	kgf/cm^2	110
Tensile Stress at 10% Strain 1)	D638	kgf/cm^2	175
Tensile Stress at Break 1)	D638	kgf/cm^2	440
Elongation at Break 1)	D638	%	500
Flexural Modulus 2)	D790	kgf/cm^2	3200
Tear Strength 3)	D1004	kN/m	180
Izod Impact Strength / Notched 4)	D256	kg·cm/cm	N.B.
Resilience 5)	D2632	%	53
Melting Point 6)	D3418	^oC	212
Heat Distortion Temperature 7)	D648	^oC	130
Melt Flow Rate	D1238	g/10min	14
- Temperature, ^oC / 2.16kg		^oC	230

1) ASTM Type IV dumbbells diecut from injection molded slab 2mm thick. Crosshead speed 50mm/min.
2) Crosshead speed 1.3mm/min.
3) Specimens 2mm thick. Crosshead speed 51mm/min.
4) Specimens 6.35mm thick. 'N.B.' means 'not broken'
5) Vertical rebound.
6) Differential Scanning Calorimeter (DSC), peak of endotherm. Heating rate 10^{o}C/min.
7) Load 4.6kg/cm^2.

All data reported here are believed to be correct. However, this should not be accepted as a guarantee of their accuracy.

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PROCESSING

SKYPEL G163D should be sufficiently dried prior to processing. For effective drying using dehumidifying dryer, it should be held for 2 to 3 hours at 100 ℃ or overnight at least 70 ℃. Pre-dried SKYPEL G163D in aluminum bag is also available for your convenience upon your choice.

General purpose processing condition

Process condition				G163D
Injection	Cylinder	Rear Center Front	℃	220 230 230
	Nozzle		℃	235
	Mold		℃	40
Extrusion	Cylinder	Rear Center Front	℃	210 220 225
	Die		℃	225
	Melt		℃	230

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