SKYPEL

Engineering Thermoplastic Polyester Elastomer

Version: SK-161222
Date Updated: 2016-12-22

Technical Data Sheet

SKYPEL G140D

DESCRIPTION

SKYPEL G140D is a thermoplastic polyester elastomer resin superior heat resistance. SKYPEL G140D with a medium 40D hardness based on shore D scale is widely used for injection molding and extrusion applications.

Physical properties

Properties	ASTM No	Units	G140D
Hardness - Max - 15s	D2240	Shore D	40 37
Specific Gravity	D792	-	1.16
Water Absorption, 24hr	D570	%	0.6
Mold Shrinkage	D955	%	0.8
Tensile Stress at 5% Strain 1)	D638	kgf/cm^2	24
Tensile Stress at 10% Strain 1)	D638	kgf/cm^2	44
Tensile Stress at Break 1)	D638	kgf/cm^2	270
Elongation at Break 1)	D638	%	680
Flexural Modulus 2)	D790	kgf/cm^2	680
Tear Strength 3)	D1004	kN/m	115
Izod Impact Strength / Notched 4)	D256	kg·cm/cm	N.B.
Resilience 5)	D2632	%	57
Melting Point 6)	D3418	^{o}C	157
Heat Distortion Temperature 7)	D648	^{o}C	70
Melt Flow Rate - Temperature, ^{o}C / 2.16kg	D1238	g/10min ^{o}C	7 190

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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OUTSTANDING CHARACTERISTICS AND PROPERTIES

SKYPEL G140D offers enhanced performance upon high thermal stability and flexural modulus. Outstanding characteristics of SKYPEL G140D are listed below.

1. Excellent mechanical properties such as high tensile strength and strain at break
2. High resistance to creep, impact, and flex-fatigue
3. Good thermal stability at high temperature
4. Excellent flexibility at low temperature
5. Good discoloration property at high temperature

PROCESSING

SKYPEL G140D 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 G140D in aluminum bag is also available for your convenience upon your choice.

General purpose processing condition

Process condition				G140D
Injection	Cylinder	Rear Center Front	℃	165 175 175
	Nozzle		℃	180
	Mold		℃	25
Extrusion	Cylinder	Rear Center Front	℃	150 160 165
	Die		℃	165
	Melt		℃	170

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