SKYPEL

Engineering Thermoplastic Polyester Elastomer

Technical Data Sheet

SKYPEL P155DF

DESCRIPTION

SKYPEL P155DF is a thermoplastic polyester elastomer resin superior heat resistance. SKYPEL P155DF with a medium 55D hardness based on shore D scale is widely used for injection molding and extrusion applications. And SKYPEL P155DF is also available to overmold TPU, PC, ABS, PC/ABS alloys.

Physical properties

Properties	ASTM No	Units	P155DF
Hardness (max)	D2240	Shore D	55
Specific gravity	D792	-	1.21
Water absorption, 24hr	D570	%	0.9
Mold shrinkage	D955	%	1.7
Tensile Stress at 5% Strain[1)]	D638	kgf/cm^2	90
Tensile Stress at 10% Strain[1)]	D638	kgf/cm^2	140
Tensile Stress at Break[1)]	D638	kgf/cm^2	300
Elongation at Break[1)]	D638	%	> 400
Flexural modulus[2)]	D790	kgf/cm^2	2,000
Tear strength [3)]	D1004	kN/m	130
Izod impact strength / notched [4)]	D256	kgfcm/cm	N.B
Resilience [5)]	D2632	%	54
Melting Point [6)]	D3418	°C	217
Heat distortion temperature [7)]	D648	°C	125
Melt Flow Rate Temperature, °C / 2.16kg	D1238	g/10min °C	22 230

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°C/min.
7) Load 4.6kg/cm^2

General purpose processing condition

Injection	Cylinder Rear	℃	225
	Center		235
	Front		235
	Nozzle		240
	Mold		40

Extrusion	Cylinder Rear	℃	215
	Center		225
	Front		230
	Die		230
	Melt		235