

SKYPEL

Engineering Thermoplastic Polyester Elastomer

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Technical Data Sheet

SKYPEL P137DF

DESCRIPTION

SKYPEL P137DF is a thermoplastic polyester elastomer resin superior heat resistance. SKYPEL P137DF with a medium 35D hardness based on shore D scale is widely used for injection molding and extrusion applications. And SKYPEL P137DF is also available to overmold TPU, PC, ABS, PC/ABS alloys.

Physical properties

Properties	ASTM No	Units	P137DF
Hardness (max)	D2240	Shore D	35
Specific gravity	D792	-	1.14
Water absorption, 24hr	D570	%	1.5
Mold shrinkage	D955	%	1.3
Tensile Stress at 5% Strain ¹⁾	D638	kgf/cm ²	20
Tensile Stress at 10% Strain ¹⁾	D638	kgf/cm ²	42
Tensile Stress at Break ¹⁾	D638	kgf/cm ²	180
Elongation at Break ¹⁾	D638	%	> 400
Flexural modulus ²⁾	D790	kgf/cm ²	500
Tear strength ³⁾	D1004	kN/m	80
Izod impact strength / notched ⁴⁾	D256	kgfcm/cm	N.B
Resilience ⁵⁾	D2632	%	48
Melting Point ⁶⁾	D3418	°C	200
Heat distortion temperature ⁷⁾	D648	°C	50
Melt Flow Rate Temperature, °C / 2.16kg	D1238	g/10min °C	24 230

- 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/cm²

General purpose processing condition

Injection	Cylinder	Rear	Center	Front	°C	205	215	215
	Nozzle	Mold				220	35	
Extrusion	Cylinder	Rear	Center	Front	°C	200	215	215
	Die	Melt				215	220	

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