

SKYPEL

Engineering Thermoplastic Polyester Elastomer

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Technical Data Sheet

SKYPEL P147DF

DESCRIPTION

SKYPEL P147DF is a thermoplastic polyester elastomer resin superior heat resistance. SKYPEL P147DF with a medium 47D hardness based on shore D scale is widely used for injection molding and extrusion applications. And SKYPEL P147DF is also available to overmold TPU, PC, ABS, PC/ABS alloys.

Physical properties

Properties	ASTM No	Units	P147DF
Hardness (max)	D2240	Shore D	47
Specific gravity	D792	-	1.18
Water absorption, 24hr	D570	%	1.4
Mold shrinkage	D955	%	1.6
Tensile Stress at 5% Strain ¹⁾	D638	kgf/cm ²	44
Tensile Stress at 10% Strain ¹⁾	D638	kgf/cm ²	80
Tensile Stress at Break ¹⁾	D638	kgf/cm ²	210
Elongation at Break ¹⁾	D638	%	> 400
Flexural modulus ²⁾	D790	kgf/cm ²	1,050
Tear strength ³⁾	D1004	kN/m	90
Izod impact strength / notched ⁴⁾	D256	kgfcm/cm	N.B
Resilience ⁵⁾	D2632	%	54
Melting Point ⁶⁾	D3418	°C	216
Heat distortion temperature ⁷⁾	D648	°C	85
Melt Flow Rate Temperature, °C / 2.16kg	D1238	g/10min °C	18 230

- 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	220	230	230
	Nozzle	Mold				235	40	
Extrusion	Cylinder	Rear	Center	Front	°C	205	220	220
	Die	Melt				220	225	

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