

## 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 <sup>1)</sup>	D638	kgf/cm <sup>2</sup>	44
Tensile Stress at 10% Strain <sup>1)</sup>	D638	kgf/cm <sup>2</sup>	80
Tensile Stress at Break <sup>1)</sup>	D638	kgf/cm <sup>2</sup>	210
Elongation at Break <sup>1)</sup>	D638	%	> 400
Flexural modulus <sup>2)</sup>	D790	kgf/cm <sup>2</sup>	1,050
Tear strength <sup>3)</sup>	D1004	kN/m	90
Izod impact strength / notched <sup>4)</sup>	D256	kgfcm/cm	N.B
Resilience <sup>5)</sup>	D2632	%	54
Melting Point <sup>6)</sup>	D3418	°C	216
Heat distortion temperature <sup>7)</sup>	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/cm<sup>2</sup>

### General purpose processing condition

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

