

# SKYPEL® P142DF

## SK Chemicals - Thermoplastic Polyester Elastomer

### General Information

#### Product Description

SKYPEL P142DF is a thermoplastic polyester elastomer resin superior heat resistance. SKYPEL P142DF with a medium 42D hardness based on shore D scale is widely used for injection molding and extrusion applications. And SKYPEL P142DF is also available to overmold TPU, PC, ABS, PC/ABS alloys.

#### General

Features	• High Heat Resistance
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

### Properties<sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.16		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	23	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.015	in/in	ASTM D955
Water Absorption (24 hr)	1.4	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup>			ASTM D638
5.0% Strain, 0.0787 in, Injection Molded	199	psi	
10% Strain, 0.0787 in, Injection Molded	455	psi	
100% Strain, 0.0787 in, Injection Molded	1420	psi	
Tensile Strength <sup>2</sup> (Break, 0.0787 in, Injection Molded)	2700	psi	ASTM D638
Tensile Elongation <sup>2</sup>			ASTM D638
Break, 0.0787 in, Injection Molded	820	%	
Elastomers	Nominal Value	Unit	Test Method
Tear Strength <sup>3</sup> (0.0787 in)	428	lbf/in	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 15 sec	36		
Shore D	42		
Thermal	Nominal Value	Unit	Test Method
Peak Crystallization Temperature (DSC) <sup>4</sup>	424	°F	ASTM D3418

### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	428	°F
Middle Temperature	437	°F
Front Temperature	446	°F
Nozzle Temperature	455	°F
Mold Temperature	95	°F
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	401	°F
Cylinder Zone 3 Temp.	428	°F
Cylinder Zone 5 Temp.	428	°F

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Extrusion	Nominal Value	Unit
Melt Temperature	437	°F
Die Temperature	428	°F

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Type IV, 2.0 in/min

<sup>3</sup> 2.0 in/min

<sup>4</sup> Heating rate 10°C/min.