SKYPEL® P128DF

SK Chemicals - Thermoplastic Polyester Elastomer

General Information

Product Description

SKYPEL P128DF is a thermoplastic polyester elastomer resin superior heat resistance. SKYPEL P128DF with a medium 28D hardness based on shore D scale is widely used for injection molding and extrusion applications. And SKYPEL P128DF is also available to overmold TPU, PC, ABS, PC/ABS alloys.

OUTSTANDING CHARACTERISTICS AND PROPERTIES

SKYPEL P128DF offers enhanced performance upon high thermal stability and flexural modulus. Outstanding characteristics of SKYPEL P128DF are listed below.

1. Excellent mechanical properties such as high tensile strength and strain at break
2. High resistance to creep, impact, and flex-fatigue
3. Excellent flexibility at low temperature
4. Fast crystallization to reduce the cycle time of injection process

PROCESSING

SKYPEL P128DF should be sufficiently dried prior to processing. For effective drying using dehumidifying dryer, it should be held for 2 to 3 hours at 100 ? or overnight at least 70 ?. Pre-dried SKYPEL P128DF in aluminum bag is also available for your convenience upon your choice.

General			
Features	• Creep Resistant • Good Thermal Stability	• High Impact Resistance • High Tensile Strength	• Low Temperature Flexibility
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.14		ASTM D792
Molding Shrinkage - Flow	0.013	in/in	ASTM D955
Water Absorption (24 hr)	1.8	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2]			ASTM D638
5.0% Strain, 0.0787 in, Injection Molded	114	psi	
10% Strain, 0.0787 in, Injection Molded	313	psi	
Tensile Strength [2] (Break, 0.0787 in, Injection Molded)	1990	psi	ASTM D638
Tensile Elongation [2]			ASTM D638
Break, 0.0787 in, Injection Molded	370	%	
Flexural Modulus [3]	4270	psi	ASTM D790
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength [4] (0.0787 in)	> 400	lbf/in	ASTM D624
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (0.250 in)	No Break		ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	28		ASTM D2240

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	113	°F	ASTM D648
Peak Crystallization Temperature (DSC) [5]	385	°F	ASTM D3418
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	8.0E+13	ohms	ASTM D257
Volume Resistivity	6.0E+14	ohms·cm	ASTM D257
Dissipation Factor (10 MHz)	0.028		ASTM D150
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Resilience [6]	55	%	ASTM D2632

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	374	°F
Middle Temperature	392	°F
Front Temperature	392	°F
Nozzle Temperature	401	°F
Mold Temperature	86	°F
Extrusion	**Nominal Value**	**Unit**
Cylinder Zone 1 Temp.	383	°F
Cylinder Zone 3 Temp.	410	°F
Cylinder Zone 5 Temp.	410	°F
Melt Temperature	419	°F
Die Temperature	410	°F

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Type IV, 2.0 in/min

[3] 0.051 in/min

[4] 2.0 in/min

[5] Heating rate 10°C/min.

[6] Vertical rebound