

# SKYPEL® LX780A

## SK Chemicals - Thermoplastic Polyester Elastomer

### General Information

#### Product Description

SKYPEL LX780A is a thermoplastic polyester elastomer resin with a medium 80A hardness based on shore A scale. It has excellent tensile strength and low temperature flexibility. It is widely used for injection molding and extrusion applications.

#### General

Features	• High Tensile Strength	• Low Temperature Flexibility
Forms	• Pellets	
Processing Method	• Extrusion	• Injection Molding

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.06		ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/2.16 kg)	25	g/10 min	ASTM D1238
Molding Shrinkage - Flow	7.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.90	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup>			ASTM D638
5.0% Strain, 0.0787 in, Injection Molded	85.3	psi	
10% Strain, 0.0787 in, Injection Molded	156	psi	
100% Strain, 0.0787 in, Injection Molded	498	psi	
Tensile Strength <sup>2</sup> (Break, 0.0787 in, Injection Molded)	40600	psi	ASTM D638
Tensile Elongation <sup>2</sup>			ASTM D638
Break, 0.0787 in, Injection Molded	1500	%	
Elastomers	Nominal Value	Unit	Test Method
Tear Strength <sup>3</sup> (0.0787 in)	480	lbf/in	ASTM D624
Compression Set (158°F, 22 hr)	57	%	ASTM D395
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A	< 80		
Shore A, 15 sec	79		
Thermal	Nominal Value	Unit	Test Method
Peak Crystallization Temperature (DSC) <sup>4</sup>	378	°F	ASTM D3418

### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	401	°F
Middle Temperature	410	°F
Front Temperature	419	°F
Nozzle Temperature	428	°F
Mold Temperature	95	°F
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	383	°F
Cylinder Zone 3 Temp.	410	°F
Cylinder Zone 5 Temp.	410	°F

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Extrusion	Nominal Value	Unit
Melt Temperature	419	°F
Die Temperature	410	°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.