

# SKYPEL® G240D

## SK Chemicals - Thermoplastic Polyester Elastomer

### General Information

#### Product Description

SKYPEL G240D is a thermoplastic polyester elastomer resin exhibiting superior heat resistance with a relatively high melting point. SKYPEL G240D with a medium 40D hardness based on shore D scale is widely used for injection molding and extrusion applications.

#### OUTSTANDING CHARACTERISTICS AND PROPERTIES

SKYPEL G240D offers enhanced performance upon high thermal stability and flexural modulus. Outstanding characteristics of SKYPEL G240D 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. Good thermal stability at high temperature
4. Excellent flexibility at low temperature
5. Good discoloration property at high temperature

#### APPLICATION

SKYPEL G240D is suitable for general compounding and producing special products such as automotive parts, cable jackets, hoses, tubes, films, and sheets.

#### PROCESSING

SKYPEL G240D should be sufficiently dried prior to processing. For effective drying using dehumidifying dryer, it should be held for 2 to 3 hours at 100 °C or overnight at least 70 °C. Pre-dried SKYPEL G240D in aluminum bag is also available for your convenience upon your choice. Injection molding and extrusion conditions are summarized in Table 2.

#### General

Features	<ul style="list-style-type: none"> <li>• Creep Resistant</li> <li>• Fatigue Resistant</li> <li>• Good Color Stability</li> </ul>	<ul style="list-style-type: none"> <li>• Good Thermal Stability</li> <li>• High Heat Resistance</li> <li>• High Impact Resistance</li> </ul>	<ul style="list-style-type: none"> <li>• High Tensile Strength</li> <li>• Low Temperature Flexibility</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Automotive Applications</li> <li>• Cable Jacketing</li> <li>• Compounding</li> </ul>	<ul style="list-style-type: none"> <li>• Film</li> <li>• Hose</li> <li>• Sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Tubing</li> </ul>
Forms	<ul style="list-style-type: none"> <li>• Pellets</li> </ul>		
Processing Method	<ul style="list-style-type: none"> <li>• Extrusion</li> </ul>	<ul style="list-style-type: none"> <li>• Injection Molding</li> </ul>	

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.10		ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/2.16 kg)	8.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup>			ASTM D638
5.0% Strain, 0.0787 in, Injection Molded	319	psi	
10% Strain, 0.0787 in, Injection Molded	493	psi	
Tensile Strength <sup>2</sup> (Break, 0.0787 in, Injection Molded)	3920	psi	ASTM D638
Tensile Elongation <sup>2</sup>			ASTM D638
Break, 0.0787 in, Injection Molded	670	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	40		ASTM D2240
Shore Hardness			ISO 868
--	< 37		
15 sec	33		
Thermal	Nominal Value	Unit	Test Method
Peak Crystallization Temperature (DSC) <sup>3</sup>	376	°F	ASTM D3418

### Processing Information

Injection	Nominal Value	Unit
Rear Temperature	401 to 410	°F
Middle Temperature	410 to 419	°F
Front Temperature	410 to 419	°F
Nozzle Temperature	419 to 428	°F
Mold Temperature	95	°F
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	374 to 383	°F
Cylinder Zone 3 Temp.	401 to 410	°F
Cylinder Zone 5 Temp.	410 to 419	°F
Melt Temperature	419 to 428	°F
Die Temperature	410 to 419	°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> Heating rate 10°C/min.