

# ELITE™ 5400GS

Enhanced Polyethylene Resin

The Dow Chemical Company

## Message:

ELITE™5400GS reinforced polyethylene resin is made of Dow INSITE™The copolymer produced by technology has excellent impact resistance, excellent tear resistance, tensile resistance and optical properties, and can be used to manufacture high-strength blown films. In addition, ELITE™5400GS reinforced polyethylene resin also integrates unique properties such as low sealing temperature, higher modulus and less likely to block, and can be used for automatic packaging.

Purpose:

Food and special packaging films.

extremely high impact resistance.

Excellent tear resistance, tensile resistance and optical properties.

low initial sealing temperature and high thermal viscosity strength can be used for bag making, filling and sealing purposes.

Compliance:

EU No 10/2011 Regulation

FDA FCN 424

check the regulations for complete information

General Information			
Agency Ratings	FDA FCN 424		
	Europe No 10/2011		
Forms	Particle		
Processing Method	Film extrusion		
	Blow film		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.916	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	51	µm	
Film Puncture Energy <sup>1</sup> (51 µm)	5.50	J	Internal method
Film Puncture Force <sup>2</sup> (51 µm)	107	N	Internal method
secant modulus <sup>3</sup>			ASTM D882
1% secant, MD: 51 µm	171	MPa	ASTM D882
1% secant, TD: 51 µm	194	MPa	ASTM D882
Tensile Strength <sup>4</sup>			ASTM D882
MD: Yield, 51 µm	11.3	MPa	ASTM D882
TD: Yield, 51 µm	11.2	MPa	ASTM D882
MD: Fracture, 51 µm	54.0	MPa	ASTM D882
TD: Fracture, 51 µm	52.0	MPa	ASTM D882
Tensile Elongation <sup>5</sup>			ASTM D882
MD: Fracture, 51 µm	640	%	ASTM D882

TD: Fracture, 51 μm	660	%	ASTM D882
Dart Drop Impact <sup>6</sup> (51 μm)	> 850	g	ASTM D1709B
Elmendorf Tear Strength <sup>7</sup>			ASTM D1922
MD : 51 μm	630	g	ASTM D1922
TD : 51 μm	770	g	ASTM D1922
Seal Initiation Temperature <sup>8</sup> (51 μm)	90.0	°C	Internal method
Thermal	Nominal Value	Unit	Test Method
Melting Temperature	122	°C	DSC
Optical	Nominal Value	Unit	Test Method
Gloss <sup>9</sup> (20°, 51.0 μm)	77		ASTM D2457
Haze <sup>10</sup> (51.0 μm)	9.5	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Melt Temperature	190 - 246	°C	
Extrusion instructions			
吹塑薄膜挤出的制造条件: 模具间隙:0.8-2.8 mm. 熔体温度:190-246 °C. 放大比:1.5:1 至 3.5:1.			
NOTE			
1.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
2.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
3.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
4.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
5.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
6.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
7.	Type A; Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
8.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap. Achieve a temperature of 5.25 N/15mm heat sealing strength.		
9.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		
10.	Blown film extruded at 232-246°C, 2.5:1 BUR, 1.9mm mold gap.		

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