



## EL-Pro® P851JO

SCG Chemicals Co., Ltd. - Polypropylene Random Copolymer

Tuesday, June 17, 2008

### General Information

#### Product Description

EL-Pro P851JO is a general random copolymer polypropylene resin which has high clarity, high brightness, good processibility and contains anti-static agent suitable for injection molding process.

#### General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• North America	
Features	• Food Contact Acceptable	• High Clarity	• Low to No Odor
	• Good Processability	• High Gloss	• Random Copolymer
Uses	• Containers	• Food Containers	• Household Goods
Agency Ratings	• FDA 21 CFR 177.1520 <sup>1</sup>		
Forms	• Pellets		
Processing Method	• Injection Molding		

### ASTM and ISO Properties<sup>2</sup>

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.910 g/cm <sup>3</sup>	0.910 g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	20 g/10 min	20 g/10 min	ASTM D1238
Molding Shrinkage			ASTM D955
Flow, 0.0787 in (2.00 mm)	0.013 in/in	1.3 %	
Molding Shrinkage			ASTM D955
Across Flow, 0.0787 in (2.00 mm)	0.014 in/in	1.4 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength <sup>3</sup> (Yield)	4550 psi	31.4 MPa	ASTM D638
Tensile Strength <sup>3</sup> (Break)	2840 psi	19.6 MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Break)	600 %	600 %	ASTM D638
Flexural Modulus	178000 psi	1230 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
32 °F (0 °C)	0.735 ft-lb/in	39.2 J/m	
73 °F (23 °C)	1.19 ft-lb/in	63.7 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	80	80	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	212 °F	100 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	122 °F	50.0 °C	
Brittleness Temperature	-4.00 °F	-20.0 °C	ASTM D746
Vicat Softening Point	266 °F	130 °C	ASTM D1525
Melting Temperature	302 °F	150 °C	ASTM D2117

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating - UL	HB	HB	UL 94

  

Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Gloss	84	84	ASTM D2457
Haze	9.0 %	9.0 %	ASTM D1003

#### Processing Information

Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	446 to 518 °F	230 to 270 °C
Mold Temperature	77.0 to 158 °F	25.0 to 70.0 °C
Injection Rate	Fast	Fast
Screw Speed	40 to 70 rpm	40 to 70 rpm

#### Injection Notes

Injection Pressure: 40 to 80% of max. pressure  
Packing and Holding Pressure: 30 to 60% of max. pressure  
Back Pressure: 10% of max. pressure

#### Notes

<sup>1</sup> When used unmodified for the manufacture of food contact articles, EI-Pro® P851JO will comply with Food Additive Regulations FDA 21 CFR 177.1520 under the U.S. Food, Drug and Cosmetic Act. Such uses are subject to good manufacturing practices and any other limitations which are part of the statute or regulations. These should be consulted for complete details.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 2.0 in/min (50 mm/min)