

STYRON™ 685P

General Purpose Polystyrene

Americas Styrenics LLC

Message:

STYRON™685P is a general-purpose polystyrene material. This product is available in North America or Latin America and is processed by extrusion or injection molding.

STYRON™The main features of 685P are:

- flame retardant/rated flame
- high strength
- accessible food
- Heat resistance

Typical application areas include:

- medical/health care
- packing
- Electrical/electronic applications
- Foam
- Consumer goods

General Information			
UL YellowCard		E326906-100171519	
Features	High tensile strength		
	Heat resistance, high		
	Compliance of Food Exposure		
	Disposable		
Uses	Packaging		
	Electrical/Electronic Applications		
	Foam		
	Consumer goods application field		
	Medical devices		
Agency Ratings	FDA 21 CFR 177.1640		
	USP Class VI		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.2	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.80	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	107		ASTM D785

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	3170	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield, injection molding	52.0	MPa	ASTM D638
Fracture, rotomolding	51.0	MPa	ASTM D638
Tensile Elongation (Break, Injection Molded)	3.0	%	ASTM D638
Flexural Modulus (Injection Molded)	3240	MPa	ASTM D790
Flexural Strength (Injection Molded)	90.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, Injection Molded)	21	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	98.0	°C	ASTM D648
1.8 MPa, not annealed	89.0	°C	ASTM D648
Vicat Softening Temperature	108	°C	ASTM D1525 ¹
CLTE - Flow	9.0E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value		Test Method
Flame Rating	HB		UL 94
Injection	Nominal Value	Unit	
Rear Temperature	230 - 245	°C	
Middle Temperature	215 - 230	°C	
Front Temperature	200 - 215	°C	
Nozzle Temperature	230 - 245	°C	
Mold Temperature	15.6 - 65.6	°C	
Back Pressure	0.172 - 1.48	MPa	
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	177 - 193	°C	
Cylinder Zone 2 Temp.	182 - 204	°C	
Cylinder Zone 3 Temp.	188 - 210	°C	
Cylinder Zone 4 Temp.	199 - 216	°C	
Cylinder Zone 5 Temp.	204 - 221	°C	
Melt Temperature	193 - 232	°C	
Die Temperature	199 - 232	°C	
Extrusion instructions			
Zoone 6: 204°C - 221°C Polish Rolls: 66°C to 104°C Head Pressure: 10-21 MPa			
NOTE			
1.	标准 B (120°C/h), 压力 1 (10N)		

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

