

# Isocor™ 637

## Polyamide 6

### Shakespeare Monofilaments and Specialty Polymers

#### Message:

Isocor™ 637 multi-polymer is a linear polyamide with unique solubility characteristics and physical properties. Unlike conventional polyamides, Isocor™ 637 is soluble in common alcohols or in alcohol / water mixtures. Isocor™ 637 is easily processed and has a wide range of applications due to its physical properties, chemical resistance, and lower melt temperatures.

Typical applications for Isocor™ 637 include:

thread bonding  
specialty coatings  
pigment carriers  
specialty adhesives  
polymer additives

General Information			
Features	Good chemical resistance		
Uses	Coating application		
	Bonding		
	Adhesive		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.07	g/cm <sup>3</sup>	ASTM D792
Water Absorption (24 hr)	3.5	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	62		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	47.6	MPa	ASTM D638
Tensile Elongation (Break)	360	%	ASTM D638
Flexural Modulus	179	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Melting Temperature	145	°C	DSC
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+12	ohms · cm	ASTM D257
Injection	Nominal Value	Unit	
Dew Point	< -17.8	°C	
Suggested Max Moisture	0.20	%	
Hopper Temperature	60.0	°C	
Rear Temperature	143 - 154	°C	
Middle Temperature	149 - 160	°C	

Front Temperature	154 - 166	°C
Nozzle Temperature	143 - 154	°C
Processing (Melt) Temp	143 - 154	°C
Mold Temperature	10.0 - 93.3	°C
Injection Pressure	3.45 - 13.8	MPa
Injection Rate	Fast	
Back Pressure	0.689	MPa
Extrusion	Nominal Value	Unit
Suggested Max Moisture	0.10	%
Hopper Temperature	79.4	°C
Cylinder Zone 1 Temp.	218	°C
Cylinder Zone 2 Temp.	246	°C
Cylinder Zone 3 Temp.	246	°C
Cylinder Zone 4 Temp.	246	°C
Die Temperature	229	°C
Extrusion instructions		

Flange: 445°F (229°C) Air Dew Point (max): 0°F (-18°C) Neck: 445°F (229°C) Head: 445°F (229°C) Pump: 445°F (229°C)

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