# Quantum Composites QPC-1977

### Thermoset Polyester

Quantum Composites Inc.

#### Message:

QPC-1977 is a modified polyester sheet molding compound (SMC) that is designed for applications requiring high strength, fire retardance, and resistance to elevated temperatures. It offers fast molding cycles and good surface appearance.

General Information				
Filler / Reinforcement	Glass Fiber,50% Filler by Weight			
Features	Fast Molding Cycle			
	Flame Retardant			
	Good Surface Finish			
	High Heat Resistance			
	High Strength			
Appearance	Grey			
Forms	SMC - Sheet Molding Compound			
Processing Method	Compression Molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.74	g/cm³	ASTM D792	
Molding Shrinkage - Flow	0.050	%	ASTM D955	
Water Absorption (24 hr)	0.15	%	ASTM D570	
Hardness	Nominal Value	Unit	Test Method	
Barcol Hardness	58		ASTM D2583	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength	221	MPa	ASTM D638	
Flexural Modulus	15900	MPa	ASTM D790	
Flexural Strength	400	MPa	ASTM D790	
Compressive Strength	172	MPa	ASTM D695	
Shear Modulus	4480	MPa	ASTM D732	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact	1600	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load (1.8				
MPa, Unannealed)	127	°C	ASTM D648	
Thermoset	Nominal Value	Unit		
Shelf Life				
4°C	26	wk		
24°C	4.3	wk		
Demold Time (143°C)	1.3	min		
Injection	Nominal Value	Unit		

Mold Temperature	132 to 157	°C	
Injection Pressure	2.76 to 8.27	MPa	

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#### Recommended distributors for this material

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