# RALUPOL® UP 8601

### Thermoset Polyester

#### **RASCHIG GmbH**

#### Message:

Glass-fibre reinforced Polyester moulding compound

Mould shrinkage similar to phenolic moulding compounds, low post-shrinkage, good electrical values, excellent heat resistance, good mechanical strength, good mechanical strength, excellent surface quality and excellent colour stability (non-yellowing).

Primary application(s): Oven fittings

This product meets the allowed upper limits for heavy metals and PCAs and also conforms to the requirements of the EU directives 2002/95 (RoHS), 2002/96 (WEEE) and 2006/122 (PFOS)

General Information					
Filler / Reinforcement	Glass Fiber				
Features	Good Color Stability				
	Good Electrical Properties				
	Good Strength				
	Good Surface Finish				
	High Heat Resistance				
	Low Shrinkage				
Uses	Appliance Components				
Agency Ratings	EU 2002/96/EC (WEEE)				
	EU 2006/122/EC				
RoHS Compliance	RoHS Compliant				
Forms	Granules				
Processing Method	Injection Molding				
Physical	Nominal Value	Unit	Test Method		
Density	1.90 to 2.10	g/cm³	ISO 1183		
Apparent Density	0.75 to 1.00	g/cm³	ISO 60		
Molding Shrinkage - Flow <sup>1</sup>	0.60 to 0.90	%	ISO 2577		
Water Absorption (23°C, 24 hr)	< 0.55	%	ISO 62		
Post Shrinkage <sup>2</sup>	< 0.10	%	ISO 2577		
Maximum Service Temperature			IEC 60216		
<50 h	200	°C			
20,000 h	150	°C			
Compression Molding Molding Pressure	> 10.0	MPa			
Compression Molding Temperature	165 to 180	°C			
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus (Injection Molded)	10000 to 12000	MPa	ISO 527-2		
Tensile Stress (Injection Molded)	40.0 to 70.0	MPa	ISO 527-2		
Flexural Modulus (Injection Molded)	14000 to 16000	MPa	ISO 178		

Flexural Stress (Injection Molded)	90.0 to 120	MPa	ISO 178
Compressive Stress	150 to 200	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (Injection Molded)	2.0 to 4.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (Injection Molded)	5.0 to 10	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, Unannealed	140 to 170	°C	ISO 75-2/A
8.0 MPa, Unannealed	70.0 to 130	°C	ISO 75-2/C
CLTE - Flow (50 to 100°C)	4.0E-5 to 5.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.50 to 0.60	W/m/K	ASTM E1461
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+12 to 1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+13 to 1.0E+14	ohms·cm	IEC 60093
Arc Resistance	PLC 4		ASTM D495
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm, Tested by RASCHIG)	V-0		UL 94
Injection	Nominal Value	Unit	
Middle Temperature	50.0 to 70.0	°C	
Front Temperature	80.0 to 100	°C	
Processing (Melt) Temp	100 to 115	°C	
Mold Temperature	165 to 180	°C	
Back Pressure	1.00 to 1.50	MPa	
Screw Speed	70 to 100	rpm	
NOTE			
1.	Injection Molded		
2.	168 h / 110°C		

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