

# EPOXIDUR® EP 3582

Epoxy; Epoxide

RASCHIG GmbH

## Message:

Glass-fibre reinforced and inorganically filled epoxy moulding compound

Good mechanical strength, very good electrical isolation properties and dimensional stability even at high temperatures

Moulding compound with a broad spectrum of applications

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\Inorganic
Features	Good Dimensional Stability
	Good Electrical Properties
	Good Strength
Agency Ratings	EU 2002/96/EC (WEEE)
	EU 2006/122/EC
RoHS Compliance	RoHS Compliant
Appearance	Black
Forms	Granules
Processing Method	Compression Molding
	Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.90 to 2.00	g/cm <sup>3</sup>	ISO 1183
Apparent Density	0.70 to 1.00	g/cm <sup>3</sup>	ISO 60
Molding Shrinkage - Flow	0.30 to 0.50	%	ISO 2577
Water Absorption (23°C, 24 hr)	< 0.10	%	ISO 62
Post Shrinkage <sup>1</sup>	< 0.050	%	ISO 2577
Compression Molding Molding Pressure	> 5.00	MPa	
Compression Molding Temperature	150 to 190	°C	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	15000 to 18000	MPa	ISO 527-2
Tensile Stress	60.0 to 80.0	MPa	ISO 527-2
Flexural Modulus	20000 to 23000	MPa	ISO 178
Flexural Stress	180 to 210	MPa	ISO 178
Compressive Stress	200 to 250	MPa	ISO 604

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	4.0 to 7.0	kJ/m <sup>2</sup>	ISO 179/1eA

Charpy Unnotched Impact Strength	12 to 16	kJ/m <sup>2</sup>	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, Unannealed	> 200	°C	ISO 75-2/A
8.0 MPa, Unannealed	180 to 200	°C	ISO 75-2/C
CLTE - Flow (50 to 150°C)	1.5E-5 to 2.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.40 to 0.60	W/m/K	ASTM E1461
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14 to 1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+15 to 1.0E+16	ohms·cm	IEC 60093
Electric Strength	20 to 30	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
	6.00		
100 Hz	4.00		
	6.00		
1 MHz	4.00		
Dissipation Factor			IEC 60250
100 Hz	0.010 to 0.020		
1 MHz	0.020 to 0.040		
Arc Resistance	PLC 4		ASTM D495
Comparative Tracking Index	> 250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.60 mm)	HB		UL 94
Glow Wire Flammability Index	900	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	900	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Middle Temperature	50.0 to 70.0	°C	
Front Temperature	70.0 to 90.0	°C	
Processing (Melt) Temp	90.0 to 105	°C	
Mold Temperature	150 to 190	°C	
Back Pressure	0.500 to 1.50	MPa	
Screw Speed	40 to 80	rpm	
NOTE			
1.	168 h / 110°C		

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