

# CompaMid® PA 6.6 GF 30

Polyamide 66

DimeLika Plast GmbH

## Message:

Our new crosslinkable CompaMid® PA 6.6 compounds are thermoplastic polymers which behave like elastomers over a wide temperature range as a result of beta radiation cross-linking. Thanks to crosslinking, the originally thermoplastic material can withstand significantly higher temperatures of up to 400°C, thus providing greater shape retention under thermal load. Due to its excellent performance profile, crosslinkable CompaMid® PA 6.6 can replace costly high-performance plastics such as PPA, PPS or LCP in many cases. No mould changes are required when switching from standard PA 6.6 to CompaMid® PA 6.6, and the process parameters also remain the same.

### Electrical Applications

Thanks to their outstanding electrical and mechanical properties, crosslinkable CompaMid® PA 6.6 compounds are ideally suited for applications in the electrical and electronics industries.

### Automotive Applications

Crosslinked components made of CompaMid® PA 6.6 are used in the engine bay and exhaust system, where requirements are the toughest for heat resistance and shape retention, as well as resistance to salts, chemicals and corrosive media.

General Information				
Filler / Reinforcement	Glass Fiber,30% Filler by Weight			
Features	Crosslinkable			
	Good Electrical Properties			
Physical	Dry	Conditioned	Unit	Test Method
Density	1.36	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>1</sup>				ISO 294-4
Across Flow : 80°C	0.55	--	%	
Flow : 80°C	0.35	--	%	
Water Absorption				ISO 62
Saturation, 23°C	5.5	--	%	
Equilibrium, 23°C, 50% RH	1.8	--	%	
Viscosity Number	145	--	cm <sup>3</sup> /g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	10300	7200	MPa	ISO 527-2/1
Tensile Stress				ISO 527-2/50
Yield	200	130	MPa	
Break	185	125	MPa	
Tensile Strain				ISO 527-2/50
Yield	3.0	5.5	%	
Break	3.0	6.0	%	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	10	kJ/m <sup>2</sup>	
23°C	11	17	kJ/m <sup>2</sup>	

Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	70	kJ/m <sup>2</sup>	
23°C	90	100	kJ/m <sup>2</sup>	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	250	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	250	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	135	--	°C	ISO 75-2/C
Melting Temperature	260	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 80°C	2.0E-5	--	cm/cm/°C	
Transverse : 23 to 80°C	6.0E-5	--	cm/cm/°C	
Heat Distortion	< 400	< 400	°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+10	--	ohms	IEC 60093
Volume Resistivity	1.0E+15	--	ohms·cm	IEC 60093
Relative Permittivity (1 MHz)	3.50	--		IEC 60250
Comparative Tracking Index (Solution A)	550	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.800 mm)	HB	--		UL 94
NOTE				
1.	260 °CWZ, 600 Bar			

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