# CompaMid® PA 6.6 GF 10 M 20

### 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, 10% Filler by Weight

Mineral,20% Filler by Weight

Features

Good Electrical Properties

Crosslinkable

Physical	Dry	Conditioned	Unit	Test Method
Density	1.48		g/cm³	ISO 1183
Molding Shrinkage <sup>1</sup>				ISO 294-4
Across Flow : 80°C	0.40		%	
Flow : 80°C	0.20		%	
Water Absorption				ISO 62
Saturation, 23°C	5.0		%	
Equilibrium, 23°C, 50%				
RH	1.5		%	
Viscosity Number	136		cm³/g	ISO 307
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	11800	5900	MPa	ISO 527-2/1
Tensile Stress				ISO 527-2/50
Yield	160	80.0	MPa	
Break	155	80.0	MPa	
Tensile Strain				ISO 527-2/50
Yield	2.3	6.0	%	
Break	2.3	5.5	%	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact				
Strength				ISO 179/1eA

-30°C	6.0	6.0	kJ/m²	
23°C	7.0	15	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	45	45	kJ/m²	
23°C	50	60	kJ/m²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	250		°C	ISO 75-2/B
1.8 MPa, Unannealed	225		°C	ISO 75-2/A
Melting Temperature	260		°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 80°C	1.0E-5		cm/cm/°C	
Transverse : 23 to 80°C	5.0E-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)	4.00			IEC 60250
Comparative Tracking Index (Solution A)	375		V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.800 mm)	НВ			UL 94
NOTE				
1.	260 °CWZ, 600 Bar			

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## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

