CompaMid® PA 6 GK 30

Polyamide 6

DimeLika Plast GmbH

Message:

Our new crosslinkable CompaMid® PA 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 350 °C, thus providing greater shape retention under thermal load. Due to its excellent performance profile, crosslinkable CompaMid® PA 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 to CompaMid® PA 6, and the process parameters also remain the same.
Electrical Applications
Thanks to their outstanding electrical and mechanical properties, crosslinkable CompaMid® PA 6 compounds are ideally suited for applications in the electrical and electronics industries.
Automotive Applications
Crosslinked components made of CompaMid® PA 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 Bead,30% Filler by Weight
Features	Crosslinkable
	Good Electrical Properties

Physical	Dry	Conditioned	Unit	Test Method
Density	1.33	--	g/cm³	ISO 1183
Molding Shrinkage [1]				ISO 294-4
Across Flow : 80°C	1.0	--	%	
Flow : 80°C	0.95	--	%	
Water Absorption				ISO 62
Saturation, 23°C	8.0	--	%	
Equilibrium, 23°C, 50% RH	2.0	--	%	
Viscosity Number	150	--	cm³/g	ISO 307
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	4200	1500	MPa	ISO 527-2/1
Tensile Stress				ISO 527-2/50
Yield	85.0	55.0	MPa	
Break	75.0	35.0	MPa	
Tensile Strain				ISO 527-2/50
Yield	2.0	3.5	%	
Break	4.0	> 50	%	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	2.0	2.0	kJ/m²	
23°C	3.0	3.0	kJ/m²	

Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	23	25	kJ/m²	
23°C	35	> 100	kJ/m²	
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, Unannealed	190	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	80.0	--	°C	ISO 75-2/A
Vicat Softening Temperature	200	--	°C	ISO 306/B120
Melting Temperature	222	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow : 23 to 80°C	8.0E-5 to 1.0E-4	--	cm/cm/°C	
Transverse : 23 to 80°C	8.0E-5 to 1.0E-4	--	cm/cm/°C	
Heat Distortion	< 350	< 350	°C	
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+10	--	ohms	IEC 60093
Volume Resistivity	1.0E+15	--	ohms·cm	IEC 60093
Electric Strength (1.00 mm)	31	--	kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	3.90	--		IEC 60250
Comparative Tracking Index (Solution A)	575	--	V	IEC 60112
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating (0.800 mm)	HB	--		UL 94
NOTE				
1.	260 °CWZ, 600 Bar			

Recommended distributors for this material

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