

Molding Compounds “KM-1000, KM-2000(G)” for Super heat resistance

KYOCERA Chemical Corporation

URL: <http://www.kyocera-chemi.jp/>

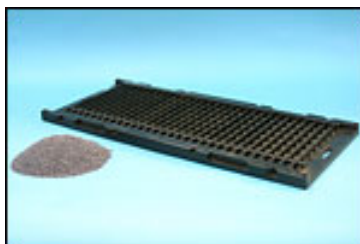
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**Environmentally friendly and possible to substitution of metal parts.
And High cost performance.**

Characteristic

KOCERA Chemical's Phenolic molding compounds "TECOLITE" are environmentally friendly molding compounds. These acquired recognize UL94V-0 without any halogenated flame retardant.

These compounds have excellent properties in high temperature. Therefore, it is possible to use in high temperature environment for substitution metal parts and various electrical parts.



Application

Test method : JIS K 6911(1995)

The values or properties are typical values, not a guaranteed value.

The property data changes according to the molding method and molding conditions at actual molded parts.

Items		Unit	KM-1000	KM-2000(G)	
Resin-type		—	Two-Stage	Single-Stage	
Color		—	Black	Black	
Electrical Properties	Dielectric Strength	MV/m	>10	>10	
	Insulation Resistance	As Molded	ohm	10 ¹¹	
		After Boiling	ohm	10 ¹⁰	10 ¹⁰
Mechanical Properties	Flexural Strength	RT	MPa	195	160
		200°C	MPa	100	—
		250°C	MPa	—	100
	Flexural Strength	RT	GPa	15.5	19.0
		200°C	GPa	12.5	—
		250°C	GPa	—	12.5
	Keeping Ration of flexural Modulus		%	>80	>80
	Charpy Impact Strength		KJ/m ²	5.0	3.9
	Compressive Strength		MPa	245	225
	Mold Shrinkage	Compression Molding	%	0.6	0.2
Heat-Deflection Temperature		°C	> 250	> 300	
Specific Gravity		—	1.80	2.02	
Flammability Properties	Flammability	(UL-94)	V-0 (0.81mm)	V-0 (0.75mm)	
	Arc Resistance	s	180	230	

Thermosetting Molded Parts

Ultra heat resistant molded parts using Phenolic molding compound KM-2000

Features

- 1) Excellent strength at high temperature.
 Applicable for the continuous use under severe temperature circumstances. Heat deflection temperature --- over 250 °C
- 2) Environmentally friendly parts. Because, KM-2000 acquired UL94-V0 without any halogenated flame retardant..
- 3) Excellent dimensional accuracy low warpage, high precision molded parts supplied.

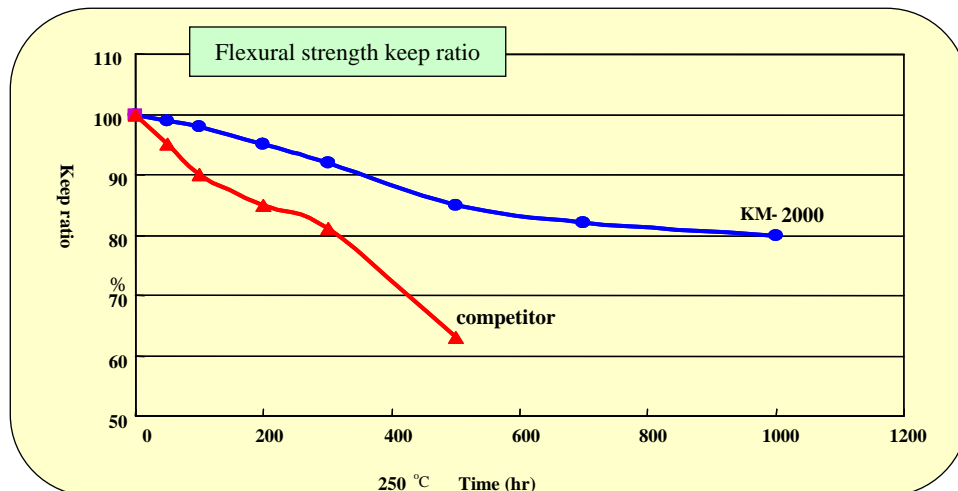
Application

Peripheral device parts of copying machine, automobile electric parts, heat resistant tray

Application Example: Part of copying machine



Long term heat endurance property of KM-2000 molded parts



Properties comparison of KM-2000 molded parts with PPS

Item	Unit	KM-2000	PPS (glass40%)
Flexural strength (RT)	MPa	160	265
Flexural strength (250 °C)	MPa	100	-
Flexural modulus (RT)	GPa	19.0	13.5
Heat deflection temperature	°C	over 300	265
Mold shrinkage	%	0.2	0.68
Arc resistance	s	230	125