



Technical Data Sheet

CMC TYPE	CMC 278XX
Material	flame retardant polypropylene insulation film
Original material	Formex GK by ITW Electronic Components FORMEX
UL file	QMFZ2.E121855
Product description	CMC 27805 to 27840 are highly robust insulation films available as rolls, sheets or die-cut parts. Key features are outstanding resilience against partial discharge, flame retardancy (UL94 V-0 or VTM-0), high breakdown voltage, good temperature performance (115°C) and virtually no hygroscopic behaviour. The material can also be supplied in a self-adhesive version, while retaining its flame-retardant properties.

CMC Type	CMC 27805	CMC 27810	CMC 27817	CMC 27830	CMC 27840
Formex	GK-5BK	GK-10	GK-17	GK-30	GK-40
Colours	black	white / black			
Thicknesses in mm	0.127	0.25	0.43	0.76	1.02
Tolerances in mm	± 0.025	+0.08/-0.04	+0.08/-0.03	±0.05	±0.05
Mechanical properties					
Tensile strength in psi (machine/transverse dir.)	3700/3300	4400/3200		4000/3200	4000/3700
Physical properties					
Density	1.035				
Flammability according to UL94	VTM-0		V-0		
Oxygen index according to ASTM D 2863	29%				
Water absorption according to ASTM D 570	0.06% (mass increase)				
Relative temperature index RTI according to UL 746B	115°C (electrical and mechanical)				
Electrical properties					
Breakdown voltage in kV _{off.} according to ASTM D 149	ca. 11	ca. 16	ca. 20	ca. 29.5	ca. 33
Dielectric strength in V/mil according to ASTM D 149 (1 mil = 25.4 µm)	ca. 2200	ca. 1620	ca. 1200	ca. 990	ca. 830
Volume resistivity in Ω·cm according to ASTM D 257	3.97·10 ¹⁵				
Dielectric constant according to ASTM D 150	1.9				
Dissipation factor according to ASTM D 150	0.0023				
High current arc ignition (HAI) according to UL 746A	performance level category 0				
High voltage arc tracking according to UL 746A	performance level category 0				
Hot wire ignition according to UL 746A	performance level category 4				
Comparative tracking index (CTI) according to ASTM D 3638	performance level category 0 (600 V)				

Other properties	
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Storage conditions: cool and dry (15 - 25°C, < 65% rel. humidity)

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Quality guarantee: 12 months

The technical data are average values and subject to change without notice. They are not intended to replace user's testing.

All information transferred from the original data sheet of our supplier.

Note on REACH: Some of our products do contain substances from the so-called candidate list. Please visit <https://en.cmc.de/page/reach> and check whether or not a purchased product is listed in our REACH statement and therefore does contain one or more SVHCs.