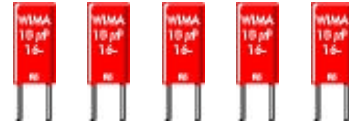


WIMA MKS 2



Metallized polyester capacitors in PCM 5 mm

- For all standard PCM 5 mm applications. ■ Wide capacitance range from 0.01 μF through 10 μF and voltage ranges from 16 VDC to 400 VDC. ■ Very advantageous volume/capacitance ratio. ■ Reservoir capacitor with unlimited life expectancy even at high temperatures. ■ Available taped and reeled.

Technical Data / [General Data](#)

Dielectric: Polyethylene terephthalate film.
Capacitor electrodes: Vacuum-deposited aluminium.
Encapsulation: Flame retardant plastic case, UL 94 V-0, with epoxy resin seal.
 Colour: Red. Marking: White.
Temperature range: -55° C to +100° C.
Test specifications: In accordance with IEC 60384-2 and EN 130400 (u. prep.).
Test category: 55/100/21 in accordance with IEC.
Insulation resistance at +20° C:

Maximum pulse rise time:

Capacitance μF	Pulse rise time V/ μsec max. operation/test					
	16 VDC	50 VDC	63 VDC	100 VDC	250 VDC	400 VDC
0.01...0.022	25/250	-	35/350	35/350	50/500	80/800
0.033...0.068	15/150	-	20/200	25/250	50/500	80/800
0.1...0.47	10/100	-	15/150	20/200	50/500	80/800
0.68...1.0	7.5/75	-	12/120	15/150	-	-
1.5...3.3	5/50	8/80	7.5/75	-	-	-
4.7	4/40	5/50	-	-	-	-
6.8...10	3/30	-	-	-	-	-

U_r	U_{test}	$C \leq 0.33 \mu\text{F}$	$0.33 \mu\text{F} < C \leq 10 \mu\text{F}$
16 VDC	10 V	$\geq 3.75 \times 10^3 \text{ MOhms}$ Mean value: $1 \times 10^4 \text{ MOhms}$	$\geq 1000 \text{ sec. (MOhms} \times \mu\text{F)}$ Mean value: 3000 sec.
50 VDC	10 V	$\geq 5 \times 10^3 \text{ MOhms}$ Mean value: $3 \times 10^4 \text{ MOhms}$	$\geq 1000 \text{ sec. (MOhms} \times \mu\text{F)}$ Mean value: 3000 sec.
63 VDC	50 V	$\geq 1 \times 10^4 \text{ MOhms}$ Mean value: $5 \times 10^4 \text{ MOhms}$	$\geq 3000 \text{ sec. (MOhms} \times \mu\text{F)}$ Mean value: 6000 sec.
$\geq 100 \text{ VDC}$	100V	$\geq 1.5 \times 10^4 \text{ MOhms}$ Mean value: $1 \times 10^5 \text{ MOhms}$	$\geq 5000 \text{ sec. (MOhms} \times \mu\text{F)}$ Mean value: 10000 sec.

for pulses equal to the rated voltage.
Vibration: 6 hours at 10...2000 Hz and 0.75 mm displacement amplitude or 10 g in accordance with IEC 60068-2-6.
Low air density: 1 kPa = 10 mbar in accordance with IEC 60068-2-13.
Bump test: 4000 bumps at 390 m/sec² in accordance with IEC 60068-2-29.
Voltage derating: A voltage derating factor of 1.25% per K must be applied from +85° C for DC voltages and from +75° C for AC voltages.

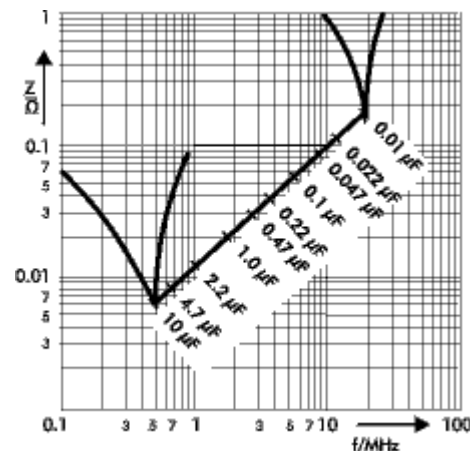
Graphs:

Taping:

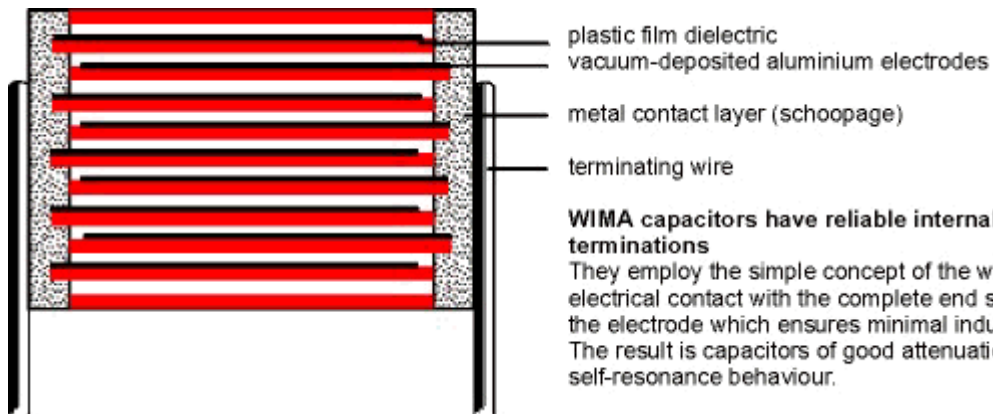
Impedance change with frequency (general guide)

In accordance with IEC 60384-2 and EN 130400 (u. prep.).
 Measuring time: 1 min.
Capacitance tolerances: +/-20%, +/-10%, +/-5%.
Test voltage: 1.6 U_r , 2 sec.
Dissipation factors at +20° C: tan delta

at f	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$	$C > 1.0 \mu\text{F}$
1 kHz	$\leq 8 \times 10^{-3}$	$\leq 8 \times 10^{-3}$	$\leq 10 \times 10^{-3}$
10 kHz	$\leq 15 \times 10^{-3}$	$\leq 15 \times 10^{-3}$	-
100 kHz	$\leq 25 \times 10^{-3}$	-	-



Internal structure of a WIMA metallized film capacitor



WIMA capacitors have reliable internal end terminations

They employ the simple concept of the wire making electrical contact with the complete end surface of the electrode which ensures minimal inductance. The result is capacitors of good attenuation and self-resonance behaviour.

centre to top edge of the component	H _l	H+H _{component} < H _l 32.25 max.	H+H _{component} < H _l 32.25 max.	< H _l 24.25 to 31.5	< H _l 25.0 to 31.5.	< H _l 26.0 to 37.0	< H _l 30.0 to 43.0	< H _l 35.0 to 45.0
Lead spacing	F	2.5 _{±0.5}	5 _{+0.8/-0.2}	7.5 _{±0.8}	10.0 _{±0.8}	15.0 _{±0.8}	22.5 _{±0.8}	27.5 _{±0.8}
Lead diameter	d	0.4 _{+0.05}	0.5 _{+0.05}	*0.5 _{+0.05} or 0.7 _{+0.07/-0.05}	*0.5 _{+0.05} or 0.7 _{+0.07/-0.05}	0.8 _{+0.08/-0.05}	0.8 _{+0.08/-0.05}	*0.8 _{+0.08/-0.05} or 1.0 _{+0.1/-0.0}
Component alignment	delta h	_{±2.0} max.	_{±2.0} max.	_{±3.0} max.	_{±3.0} max.	_{±3.0} max.	_{±3.0} max.	_{±3.0} max.
Total tape thickness	t	0.7 _{±0.2}	0.7 _{±0.2}	0.7 _{±0.2}	0.7 _{±0.2}	0.7 _{±0.2}	0.7 _{±0.2}	0.7 _{±0.2}
Package	**	ROLL / AMMO / REEL			AMMO / REEL			

***Please give "H" dimension and desired packaging type when ordering.

* Diameter of leads see General Data.

** PCM 10 and PCM 15 can be crimped to PCM 7.5 mm. Position of components according to PCM 7.5 (sketch 1). P₀ = 12.7 or 15.0 is possible.

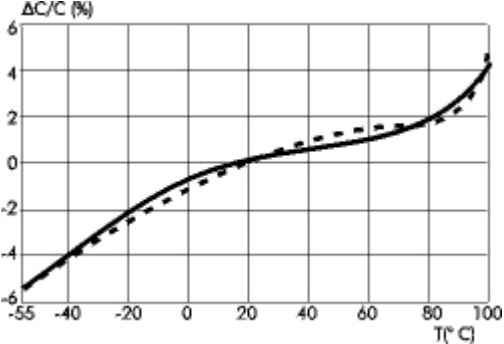
Dims. in mm.

Minimum packing units for capacitors with radial leads

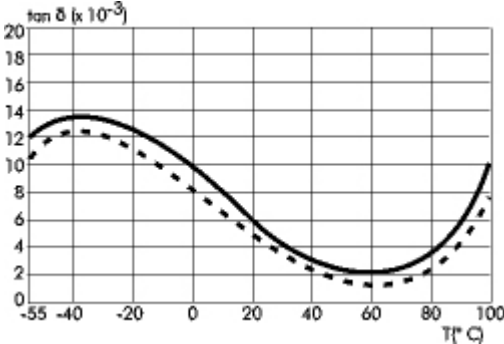
Please clarify customer-specific deviations with the manufacturer.

Polyester

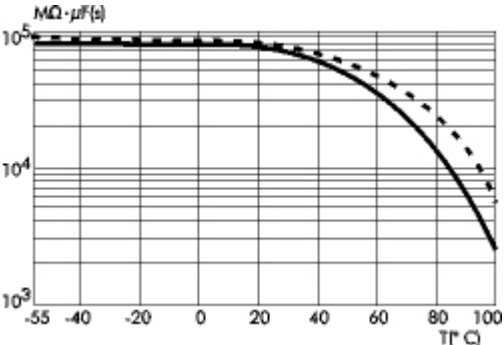
Typical graphs of the polyester dielectric



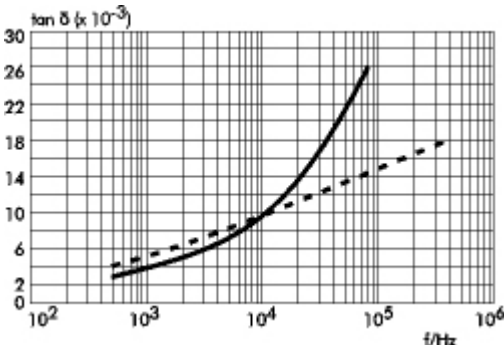
Capacitance change with temperature (f=1 kHz) (general guide)



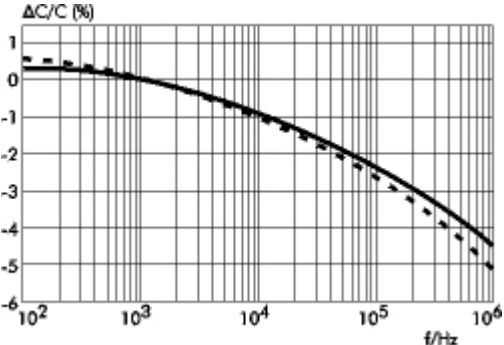
Dissipation factor change with temperature (f=1 kHz) (general guide)



Insulation resistance change with temperature (general guide)



Dissipation factor change with frequency (general guide)



Capacitance change with frequency (general guide)

Annotation:
 The full lines characterize the metallized versions
 The broken lines show the film/foil types