

General

FK 9600

Series Resistors for AlN-Substrates

Typical Properties				
	FK 9601	FK 9603	FK 9611	FK 9615
Conductive Phase	AgPd	AgPd	RuO ₂	RuO ₂
Shrinkage ¹ (%)	32-36	32-36	10-15	22-26
Resistivity ² (Ohm/sq)	1 ± 10%	3 ± 10%	10 ± 10%	50 ± 10%
TCR ³ (ppm/K)	± 150	± 150	± 150	± 100
Stability (%) of unencapsulated Resis tor				
1000 h, 150°C	< 1,0	< 1,0	< 1,0	< 0,5
1000 h, 200°C	< 1,0	< 1,0	< 2,5	< 1,0
1000 h, 250°C	< 2,0	< 2,0	< 2,5	< 1,0
1000 h, 85°C. 85%RH	< 2,0	< 2,0	< 1,5	< 1,0
Stability (%) of encapsulated Resistor with FK 4027 Layer				
1000 h, 150°C	< 0,5	< 0,5	< 0,5	< 0,5
1000 h, 200°C	< 0,5	< 0,5	< 0,5	< 0,5
1000 h, 250°C	< 1,0	< 1,0	< 0,5	< 0,5
1000 h, 85°C. 85%RH	< 1,0	< 1,0	< 0,5	< 0,5

Typical Properties		
	FK 9621	FK 9631
Conductive Phase	RuO ₂	RuO ₂
Shrinkage ¹ (%)	22-26	22-26
Resistivity ² (Ohm/sq)	100 ± 10%	1000 ± 10%
TCR ³ (ppm/K)	± 100	± 100
Stability (%) of unencapsulated Resis tor		
1000 h, 150°C	< 0,5	< 0,5
1000 h, 200°C	< 1,0	< 1,0
1000 h, 250°C	< 1,0	< 1,0
1000 h, 85°C. 85%RH	< 1,0	< 1,0
Stability (%) of encapsulated Resistor with FK 4027 Layer		
1000 h, 150°C	< 0,5	< 0,5
1000 h, 200°C	< 0,5	< 0,5
1000 h, 250°C	< 0,5	< 0,5
1000 h, 85°C. 85%RH	< 0,5	< 0,5

¹ dried to fired

² Resistivity at 22 µm dried thickness

³ TCR measured in the Ranges 30 to 120°C and -55 to 30°C



General

Recommend Processing Procedure :

Pastes or Mixtures	FK 9615 FK 9631 FK 9601 ... FK 9603
Substrates	ANCeram AIN 140, AIN 180
Termination	FK 1205
Thinner	FK 100
Storage	Store cool at 4° to 10°C Allow paste to reach ambient temperature before opening Stire thoroughly before use
Printing	200 mesh stainless steel screen with 10 – 12 µm Emulsion; level at Room temperature for 10 min.
Drying	at 150°C for 15 to 20 min.
Firing Conditions	In Air, Peak temperature 850 °C Peak time 10 min. Total process time 60 min.

