

# FlexK-LoK Data Sheet

# Low Loss, Low Dielectric Constant Silicone



### LOW LOSS, LOW K DIELECTRIC MATERIAL:

FlexK LoK is a low dielectric constant, low loss and low weight silicone rubber sheet for RF and microwave insulation. It weighs only about half that of polystyrene and one quarter that of polytetrafluoroethylene

FlexK LoK is waterproof and has excellent thermal characteristics, tolerating high and low temperatures. Material does not flake or shed. Complex shape can be die cut or water jet system

#### **FEATURES AND BENEFITS**

- Low dielectric constant
- Light weight and flexible
- Excellent thermal insulation and stability
- It can be used for commercial telecom and defense security

TYPICAL PROPERTIES	DATA
Thickness Range (mm +/- 15%)	0.25 – 1.0
Color	White
Dielectric Constant	1.7 +/- 5%
Dissipation Factor @ 1KHz	0.002
Dielectric Strength	102 V/mil (4 KV/mm)
Density	0.55g/cc
Elongation	10%
Tensile Strength	135 PSI minimum
Deflection	15% @ 100 PSI
Compression Set 23C, 22H / 100C, 70H	10% / 30%
Thermal Conductivity	0.11 W/mK
Temperature Range	-70°C to 177°C
Water Absorption	1.1 (% gain in 24h @ 70°F)
Outgassing ASTM E595-15	0.84% TML, 0.11% CVCM
RoHS / REACH (EU Regulation)	Compliant
Effective Frequency Range	60 Hz to 10 GHz
Thermal Conductivity Temperature Range Water Absorption Outgassing ASTM E595-15 RoHS / REACH (EU Regulation)	0.11 W/mK -70°C to 177°C 1.1 (% gain in 24h @ 70°F) 0.84% TML, 0.11% CVCM Compliant

Properties will vary to a degree with the dielectric constant. Typical values for the middle of the dielectric constant range are given above. Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.



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### **APPLICATIONS**

- Outdoor applications / flexible radome
- Antenna mounting spacer in small electronics
- Electrical separation of components maintaining spacing
- Microwave absorber separation for PCB absorber applications
- Thin dielectric spacer

#### **AVAILABILITY**

Standard FlexK LoK sheet sizes:

- 28017002 0.010"x12.0"x12.0"

- 28017004 0.020"x12.0"x12.0"

- 28017008 0.030"x12.0"x12.0"

- 28017006 0.040"x12.0"x12.0"

### **SAMPLES**

Standard FlexK LoK samples:

- 98100601 0.010"x4.0"x4.0"

- 98100602 0.020"x4.0"x4.0"

- 98100603 0.030"x4.0"x4.0"

- 98100604 0.040"x4.0"x4.0"



### ABS-DS-FLEXK LOK 042618

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