

# HIGH-PERFORMANCE TCK KAPTON® TAPE

Technical Data Sheet

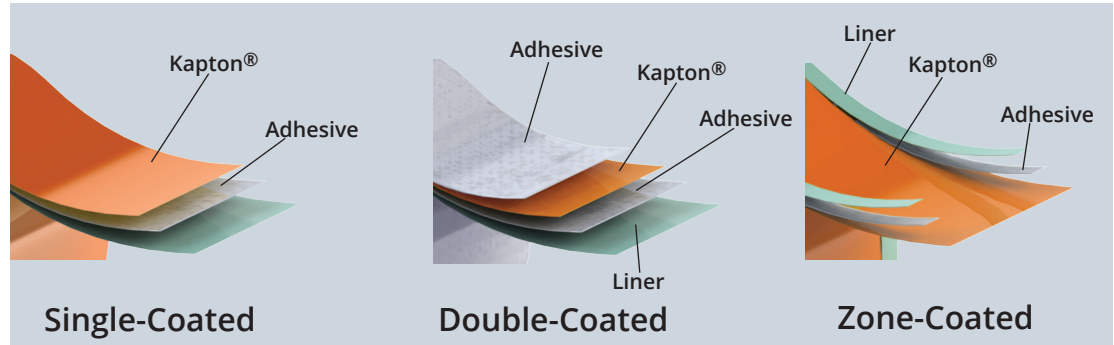
Fralock® TCK (Thermally Conductive Kapton®) high-performance tape is manufactured with DuPont™ Kapton® MT+ film, which is well-suited for demanding applications requiring high thermal conductivity and superior electrical properties. This tape features high mechanical integrity and is RoHS compliant. TCK tape is available with your choice of adhesives to best fit your requirements.

Fralock® offers complex precision laminating, adhesive coating, and a variety of cutting services for high-performance tapes. Our application engineers are available to assist with design and production of custom products that fulfill your performance requirements. With manufacturing in the U.S.A., Fralock® offers product design, development, prototyping, converting, manufacturing, and automated placement services with ISO 9001, AS9100 and ISO 13485 Registered Quality Management system. ITAR compliant.

## Applications

- Electrical insulation
- Mechanical/structural connections
- Flexible circuit bonding
- Thermal management
- Masking and protection
- Gaskets and seals

## ADHESIVE CONFIGURATIONS



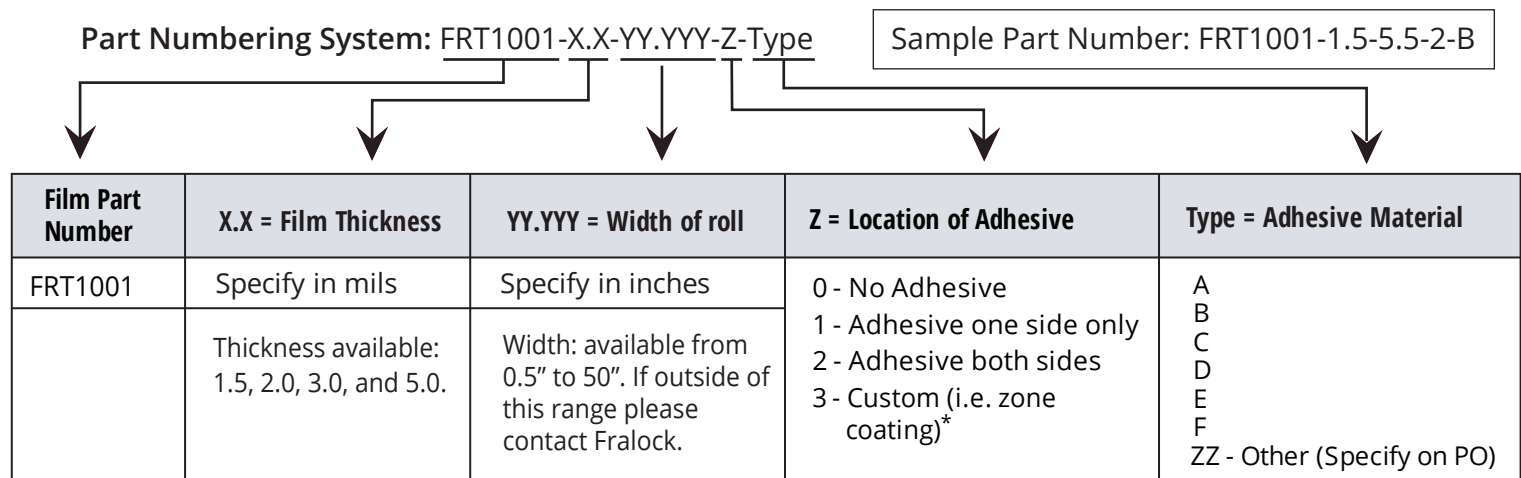
## Film Properties (Kapton® MT+)

Property	1.5 mil	2.0 mil	3.0 mil	5.0 mil	Test Method
Thickness, mils (mm)	1.5 (0.038)	2.0 (0.050)	3.0 (0.076)	5.0 (0.127)	ASTM D374
Tensile Strength, kpsi (MPa)	12 (83)	12.5 (86)	11 (76)	13 (90)	ASTM D882
Modulus, kpsi (GPa)	585 (4.0)	595 (4.1)	700 (4.8)	580 (4.0)	ASTM D882
Elongation to Break, %	51	53	28	29	ASTM D882
Dielectric Strength, kVAC/mil	5.3	5	3.4	2.9	ASTM D149
Surface Resistivity, Ω	>10 <sup>15</sup>				ASTM D257
Volume Resistivity, Ω·cm	>10 <sup>15</sup>				ASTM D257
Thermal Conductivity, W/m·K	0.75				ASTM 5470
Flammability	V-0				UL94
RoHS Compliant	Yes				N/A

## Adhesives - Pressure-Sensitive

Adhesive ID #	A	B	C	D	E	F
Temp range Min/Max	-40°F (-40°C) to 450°F (232°C)	-40°F (-40°C) to 450°F (232°C)	-40°F (-40°C) to 500 °F (260 °C)	-40°F (40°C) to 203°F (95°C)	Up to 400°F (204°C)	-100°F (-38°C) to 500°F (260°C)
Adhesive Material	Acrylic	Acrylic	Acrylic	Acrylic	Silicone	Silicone
Adhesive Thickness	2 mil	1 mil	2 mil	2 mil	4 mi	2 mil
Key Features	Exceptional shear values Low outgassing	Exceptional shear values Low outgassing	UV and solvent resistant	Anisotropically electrically conductive Good adhesion to common PCB substrates	Low surface energy Isotropically electrically conductive Performs at high temperatures	Electrically Conductive in the Z axis Excellent bond strength Chemically resistant Temperature extremes

## Ordering Information



Standard length is 100 ft. roll. Custom lengths available.

\*Custom zone coating: Please specify areas for coating

*Contact us for more information on Kapton® Tapes and other related polyimide products.*

Sales@fralock.com • www.fralock.com • 661-702-6999  
28525 West Industry Drive, Valencia, CA 91355

Warranty: User is responsible for determining whether the product is fit for a particular purpose and suitable for user's application. Limitation of Liability: Fralock® will not be liable for any loss or damage arising from the product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability. The above values are averaged values and should not be used in writing specifications.