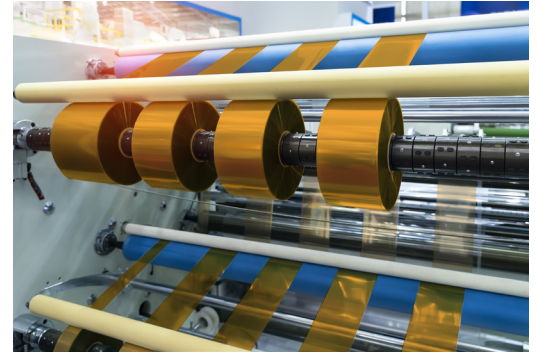


# HIGH-PERFORMANCE TAPES FOR AEROSPACE AND DEFENSE APPLICATIONS

## DuPont™ Kapton® Based Tape Series

Fralock® specialty tapes are manufactured with DuPont™ Kapton® for use in a wide variety of Aerospace, Satellite, and Defense applications. Engineers and designers depend on Kapton® for its ability to maintain continuity in extreme environmental conditions. Its unique combination of electrical, thermal, chemical and mechanical properties enable superior performance, reliability and durability in severe temperature, vibration and other demanding environments.



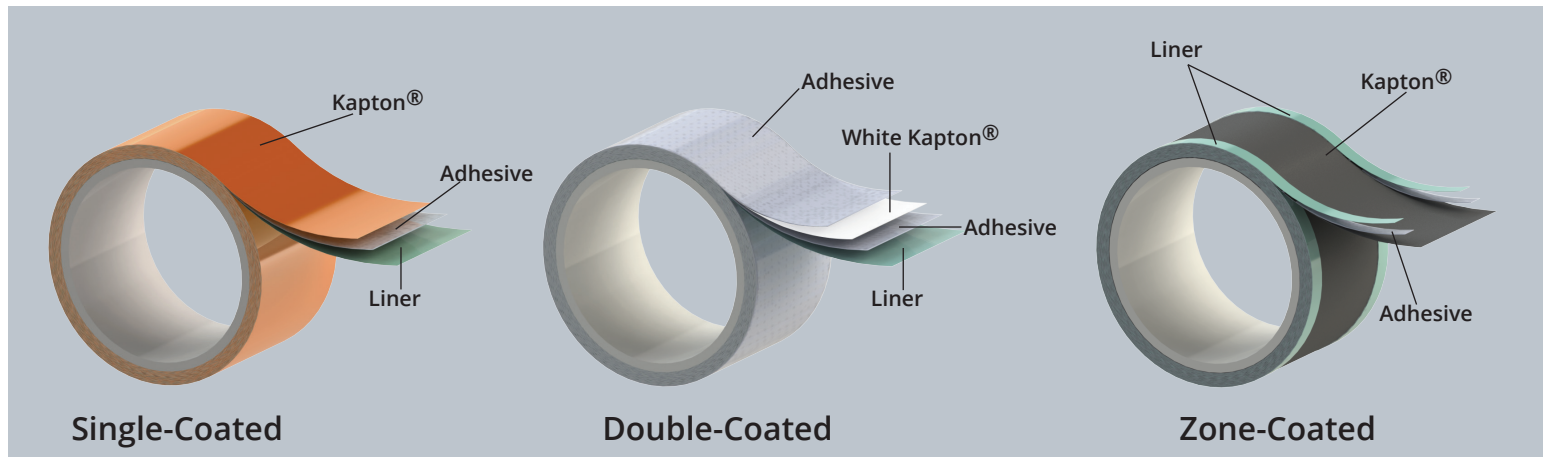
### APPLICATIONS

Electrical insulation  
 Mechanical/structural connections  
 Flexible circuit bonding  
 Thermal management

Shielding  
 Cable and harness wrap  
 Masking and protection  
 Gaskets and seals

### ADHESIVE CONFIGURATIONS

Products are available with single-coated, double-coated, or zone-coated adhesive. Zone-coated configurations may be ordered to your specifications.



### CUSTOM FABRICATION

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.

### TESTING CAPABILITIES

Fralock offers testing capabilities for specific customer requirements, such as electrical resistance, elevated temperature shear, tensile strength, tack, peel adhesion, and more.

Some materials are compliant with ATSM E595

**Kapton® Film**



Product Attribute	Thermally Conductive (TCK)	Dimensionally Stabilized (DSK)	Static Dissipative (SDK)	Original Standard (OSK)	High Emissivity White Kapton® (HEK)
Part Number	FRT1001	FRT1002	FRT1003	FRT1004	FRT1005
Kapton® Product	Kapton® MT+	Kapton® HPP-ST	Kapton® XC	Kapton® HN	Kapton® WS
Key Features	High thermal conductivity High mechanical integrity Ideal substrate for thermal interface materials RoHS compliance	Low shrinkage Superior adhesion Wide temperature range	Electrically conductive Thermal control Anti-static control Thermally durable to 325° C in oxygen-free environments Black color 2 resistances: 10E7, 10E5	Well-balanced properties Wide temperature range	Bright white color Low coefficient of thermal expansion High gloss transition temperature High modulus Glossy surface High temperature color stability

**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**

Part Numbering System: FRT1004-X.X-YY.YYY-Z-Type

Sample Part Number: FRT1004-0.5-5.5-2-B

Film Part Number	X.X = Film Thickness	YY.YYY = Width of roll	Z = Location of Adhesive	Type = Adhesive Material
FRT1001 FRT1002 FRT1003 FRT1004 FRT1005	Specify in mils  Thickness: available from 0.3 to 5.0. Depends on film type.	Specify in inches  Width: available from 0.5" to 50". If outside of this range please contact Fralock.	0 - No Adhesive 1 - Adhesive one side only 2 - Adhesive both sides 3 - Custom (i.e. zone coating)*	A B C D E F ZZ - Other (Specify on PO)

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

\*Custom zone coating: please specify areas for coating

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.