

# CHR® Pressure-Sensitive Adhesive Tapes

## Electrical Insulation and Isolation

### Film Insulation

Polyester film tapes are produced from electrical grade strength, high quality, optically pure film with consistent, minimum dielectric resistance of 5kV for 1.0-mil, 7.0kV for 2.0-mil and 10kV for 5.0-mil tapes, regardless of adhesive type or insulation class.

Polyimide film tapes, made from thermally produced, oriented film, offer distinct advantages over polyester film: higher dielectric strength and higher temperature resistance. PI film of 1.0 mil offers 6.5kV, 2.0-mil film is rated at 10.0kV and 5.0-mil film delivers the ultimate one-wrap dielectrics of 17.0kV.

PTFE-based films provide economical resistive qualities and non-stick properties important in many wire and cable applications. Dielectric strength varies with media density, but generally 2.0-mil film offers 7.5kV, 3.0-mil film is rated at 10.0kV and 5.0-mil PTFE film delivers around 13.0kV of electrical resistance.

### Fabric Insulation

Woven fiberglass cloth has traditionally been an excellent insulation material for harnesses and coil winding in motor assemblies. Available in a standard 7.0-mil-thick package and heavy duty grade at 10.0 mils, adhesive selection allows the user to bridge insulation classes from 130°C (rubber adhesive) to 200°C (silicone adhesive).

### Foil Isolation

Both aluminum foil and copper foil make superior electromagnetic and radio frequency absorption and isolation media due to their natural conductivity, flexibility and malleability. Coated with adhesives to enhance conductivity and thermal management, these CHR tapes are frequently used in end connectors and shielded cabinets and devices.

*CHR® tapes for electrical insulation applications center around dielectric strength and operating temperature. Whether it's coil winding, end tabbing, outer wrapping, harness protection or potting cable ends, these tapes cover most of the demanding industrial electrical needs. Electrical isolation is mostly about conductivity. Saint-Gobain Performance Plastics produces a variety of foil tapes formulated to shield your most important electrical cables, cabinets and individual components.*

### Features/Benefits

- Prevents Plating Solution Undercutting
- Stands Up to Multiple Operating Cycles
- No Re-work Required
- No Adhesive Residue
- Greater Operator Safety
- Excellent Temperature and Chemical Resistance



Coil outer wrap taping



EMI/RFI copper tape shielding

Temperature	Insulation Class	Material	Adhesive
130°C	B	PET, PI, Glass, PTFE	Rubber
155°C	F	PI, Glass, PTFE	Acrylic
180°C	H	PI, Glass, PTFE	Silicone
200°C	N	Glass	Silicone

UL Guide OANZ2, UL 510, file E51201 and E66639

## CHR® Pressure Sensitive Adhesive Tapes — Electrical Insulation and Isolation

Part Number	Color	Adhesive	Backing Thickness mil (mm)	Total Thickness mil (mm)	Dielectric kV	Elongation %	Tensile lbs./in. (kg/cm)
2345-1	Amber	Silicone	1.0 (0.025)	2.5 (0.064)	6.5	50	30 (5.4)
2345-2	Amber	Silicone	2.0 (0.051)	3.5 (0.089)	10.0	75	50 (8.9)
2345-5	Amber	Silicone	5.0 (0.127)	6.5 (0.165)	17.0	75	150 (26.8)
K104	Amber	Silicone	0.5 (0.013)	1.5 (0.038)	4.0	25	10 (1.8)
K250	Amber	Silicone	1.0 (0.025)	2.5 (0.064)	7.0	50	30 (5.4)
K350	Amber	Silicone	2.0 (0.051)	3.5 (0.089)	10.0	75	50 (8.9)
K102	Amber	Acrylic	1.0 (0.025)	2.5 (0.064)	7.0	50	30 (5.4)
K109	Amber	Acrylic	2.0 (0.051)	3.5 (0.089)	10.0	75	50 (8.9)
K290ESD	Amber	Silicone	1.0 (0.025)	2.5 (0.064)	7.0	50	30 (5.4)
K100	Amber	Silicone	1.0 (0.025)	4.5 (0.114)	7.5	50	30 (5.4)
M54	Yellow	Rubber	1.0 (0.025)	2.5 (0.064)	5.0	100	25 (4.5)
M69	Clear	Acrylic	1.0 (0.025)	4.0 (0.102)	5.0	100	25 (4.5)
M97	Yellow	Acrylic	1.0 (0.025)	2.5 (0.064)	5.0	100	25 (4.5)
M765	White	Acrylic	1.0 (0.025)	2.5 (0.064)	5.0	100	25 (4.5)
G551	White	Release Liner	4.5 (0.114)	7.0 (0.178)	3.5	5	150 (26.8)
G565	White	Silicone	4.5 (0.114)	7.0 (0.178)	4.5	5	160 (28.6)
G569	White	Acrylic	4.5 (0.114)	7.0 (0.178)	3.0	5	150 (26.8)
HM350	White	Silicone	2.0 (0.051)	3.5 (0.089)	8.0	150	25 (4.5)
2045-2	Gray	Acrylic	2.0 (0.051)	3.5 (0.089)	7.5	325	15 (2.7)
A662	Aluminum	Acrylic	3.0 (0.076)	5.0 (0.127)	—	18	45 (8.0)
C665	Copper	Acrylic	1.5 (0.038)	3.5 (0.089)	—	—	90 (16.1)

**Important note to purchaser:** Values shown are typical and are not to be used for specifications. All data is subject to change without notice. Before using, the user should determine the suitability of the product for its intended use, and the user assumes all risk and liability in connection therewith. Specifications are also subject to change without notice.



Saint-Gobain Performance Plastics  
Composites—North America  
14 McCaffrey Street  
Hoosick Falls, NY 12090  
Customer Service: (800) 962-2666  
Tel: (518) 686-7301  
Fax: (800) 526-8479, (518) 686-4840

Saint-Gobain Performance Plastics  
Composites—Asia  
Suite 1203, No. 147  
Chienkwo North Road Section 2  
Taipei Taiwan, 104  
Taiwan  
Tel: 886 (2) 25034201  
Fax: 886 (2) 25034202

Saint-Gobain Performance Plastics  
Composites—Europe  
Units 1 & 2, Bay 3  
Transpennine Trading Estate  
Gorrels Way  
Rochdale OL11 2PX  
United Kingdom  
Tel: 44 1706 746 900  
Fax: 44 1706 746 991

CHR® is a registered trademark.

**Limited Warranty:** For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product(s) to be free from defects in manufacturing. Our only obligation will be to provide replacement product for any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risks, if any, including the risk of injury, loss or damage, whether direct or consequential, arising out of the use, misuse, or inability to use this product(s). SAINT-GOBAIN PERFORMANCE PLASTICS DISCLAIMS ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

**NOTE:** Saint-Gobain Performance Plastics Corporation does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product(s) or of any final product into which the product(s) may be incorporated by the purchaser and/or user. The purchaser and/or user should perform its own tests to determine the suitability and fitness of the product(s) for the particular purpose desired in any given situation.

