



Scotch® Rubber Splicing Tape 23

Data Sheet

March 2023

Product Description

Scotch® Rubber Splicing Tape 23 is a premium grade, black, nominal 30-mil (0.76 mm) thick, conformable rubber splicing tape composed of a self-fusing Ethylene Propylene Diene Monomer (EPDM) rubber backing supplied on a removable polyethylene liner.

- Commonly used in these types of applications:
 - As primary insulation of cable splice and termination applications up to 69kV (ASTM D4388, Type III)
 - Critical indoor and outdoor electrical insulating applications, 3M™ recommends overwrapping with a 3M professional grade vinyl tape for added mechanical and environmental protection.
 - Moisture sealing, jacketing, bus bar insulating, and end sealing high-voltage cables
- Compatible with common solid dielectric cable insulations
- Operating Temperature Rating 194°F (90°C), Emergency Overload Rating 266°F (130°C)

Properties

Physical Properties	Value Imperial (Metric)	Mechanical Properties	Value Imperial (Metric)
Color - Visual	Black	Thickness ¹	30 +/- 3.0 mils (0.76 +/- 0.076 mm)
Backing	Ethylene Propylene Diene Monomer (EPDM)	Tensile Strength ¹ – Minimum	250 psi (1.7 MPa)
Operating Temperature Rating ² Emergency Overload Rating ²	194°F (90°C) 266°F (130°C)	Elongation ¹ – Minimum	700%
Thermal Conductivity ³ – Nominal	0.15 W/m-K	Electrical Properties	Value Imperial (Metric)
Fusion @ 300% Strain ¹	Pass	Dielectric Strength ¹ – Minimum Standard After 96 hrs @ 23°C 96% RH	700 V/mil (27.6 kV/mm) ≥90% Standard Value
Heat Resistance ¹ (7 days @ 130°C)	Pass	Volume Resistivity ¹ – Minimum After 96 hrs @ 23°C / 50% RH After 96 hrs @ 23°C / 96% RH	10 ¹⁴ ohm.cm 10 ¹³ ohm.cm
Ozone Resistance ¹	Pass	Permittivity in Air ¹ – Maximum After 24 hrs @ 23°C (H2O Immersion) After 24 hrs @ 70°C (H2O Immersion)	4.0 4.0
UV Resistance ¹	Pass	Dissipation Factor in Air ¹ – Maximum After 24 hrs @ 23°C (H2O Immersion) After 24 hrs @ 70°C (H2O Immersion)	5% 5%

Notes:

- ASTM D4325 Test Method - properties measured at room temperature 73°F (23°C) unless otherwise stated
- ASTM D4388 Standard Specification, Type III
- ASTM C518 Test Method - properties measured at room temperature 73°F (23°C) unless otherwise stated

Agency Approvals & Self Certifications

- 3M test report RPT-758793 available, tested to ASTM D4388 Type III
- For Regulatory information including RoHS, REACH, please visit www.3M.com/regs

Installation Techniques

Scotch Rubber Splicing Tape 23 should be applied in successive half-lapped layers by highly stretching tape (for most applications this stretch will reduce the tape width to a minimum of ¾ original width) throughout the entire application until the required build-up is reached to produce a uniform winding.

Shelf Life & Storage

This product has a 5-year shelf life (from date of manufacture) when stored in a humidity-controlled storage (50°F/10°C to 80°F/27°C and <75% relative humidity).

Availability

Scotch Rubber Splicing Tape 23 available from 3M authorized distributors

Also available from www.3M.com/electrical or call 1.800.245.3573.

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TECHNICAL STATEMENT

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