Scotch® Heavy Duty Mining Tape 31

Data Sheet **June 2013**

Description

Scotch® Heavy Duty Mining Tape 31 has a tough, abrasion-resistant backing for jacket repair on mining cables. Due to the extremely abrasive environment, the original jacket on the cable gets damaged often and needs to be repaired. The tape is flexible, and the self-healing property of the mastic helps keep out moisture. Scotch® Mining Tape 31 is approved by MSHA (Mining Safety & Health Administration) as the outer jacketing of the 3M™ Mining Cable Splice Kits 3100 Series. The tape is printed with the MSHA logo.

Features

- On-site, quick, universal cable repair
- Abrasion, water and oil-resistant, flexible, heavy-duty backing
- Moisture-resistant, self-healing, flame-retardant mastic
- MSHA-Approved

Applications

- Repair of mining cables and outer jacket of mining cable splice kits.
- Repair and splicing of mine conduit.

Agency Approvals & Self Certifications

RoHS
2011/65/EU

"**RoHS** 2011/65/EU" means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

Typical Properties

Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (~23°C) unless otherwise stated.

Physical Properties (Test Method)	Typical Value US units (metric)	ASTM Test Method (unless noted)
Color	Black	
Adhesive	Flame retardant	
Thickness	60 mils (1,52 mm)	D4325
Tensile Strength*	2400 psi (16,5 Mpa)	D412
Elongation* (% at break)	500%	D412
Tear Resistance*	200 pli (35 kg/cm)	D624
Hardness-Shore A	55	D2240
Adhesion to Steel	160 oz/in (17,5 N/cm)	D1000
Adhesion to PVC	85 oz/in (9,3 N/cm)	D1000
Adhesion to Neoprene	14 oz/in (1,5 N/cm)	D1000
Adhesion to CSM	107 oz/in (11,7 N/cm)	D1000
Adhesion to PE	112 oz/in (12,2 N/cm)	D1000

*Test result for backing only

Scotch® Heavy Duty Mining Tape 31

Typical Properties, *continued*

Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (~23°C) unless otherwise stated.

Electrical Properties (Test Method)	Typical Value US units (metric)	ASTM Test Method (Unless Noted)
Volume Resistivity	10^{14} ohm/cm	D257
Breakdown Voltage	400 V/mil (15,7 kV/mm)	D149

Environmental Resistance Properties (Test Method)	Typical Value US units (metric)	ASTM Test Method (Unless Noted)
Heat Resistance* (70h/125°C)	Pass	D2000-Type CE
Temperature Rating (105°C)	Pass	UL 510
Flammability	Pass	MSHA CFR 30 Part 7
Oil Resistance* (70h/125°C/IRM 903)	Pass	D2000-Type CE
Abrasion Resistance Tabor H22 wheel, 250g, 1000 cycles	0.05g (0.05g)	--
MVTR (37.8°C, 100% RH)	0.025 g/100sq.in.24h (0,38 g/sq.m.24h)	D1249
Water Absorption	0.50%	D570

*Test result for backing only

Engineering Specification

Scotch® Heavy Duty Mining Tape 31 should be half-lapped over the damaged jacket area so as to cover the entire area. Each end should be overwrapped with 3M™ Temflex™ Vinyl Electrical Tape 1700P, Scotch® Super 33+™ Vinyl Electrical Tape or Scotch® Vinyl Electrical Tape Super 88 depending on local governing requirements.

Shelf Life & Storage

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

Availability

Please contact your local distributor; available from 3M.com/electrical [Where to Buy] or call 1.800.245.3573.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product, which are not contained in 3M's current publications, or any contrary statements contained on your purchase order, shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability

This product will be free from defects in material and manufacture at the time of purchase. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.

3M,Temflex,Scotch and Super 33+ are trademarks of 3M Company.

3M

Electrical Markets Division
6801 River Place Blvd.
Austin, TX 78726-9000
800.245.3573
FAX: 800.245.0329
www.3M.com/electrical

Please recycle
© 3M 2013 All rights reserved
78-8127-6885-7 Rev D