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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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3M[™] Cold Shrink End Caps EC-Series

Data Sheet

November 2013



Description

3M Cold Shrink End Caps are close-ended, tubular rubber sleeves that are factory expanded and loaded onto a removable core. When positioned over the end of a cable, or other cylindrical object, the core is removed to provide a reliable environmental seal. Four different end caps are available to accommodate a wide range of sizes.

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.

EHS

ACAUTION

Working around energized systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling electrical equipment. De-energize and ground all electrical systems

- 3M Cold Shrink Removable Core is a mixed polymer and recyclable with waste.
- Read all Health Hazard, Precautionary and First Aid statements found in the Material Safety Data Sheet (MSDS) and/or product label prior to handling or use.

Applications

Moisture sealing and physical protection for cables, pipes or other cylindrical objects.



Features	 Simple and fast installation, no tools required Accommodates size ranges from 0.46" -3.32" Good abrasion resistance Seals tight, retains resiliency for years Water resistant No mastic or tape required Resists acids and alkalis Resists ozone Easy removal

Typical Physical 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.

EPDM Rubber

Physical Property (Test Method)	Typical Value US units (metric)
Color	Black
300% Modulus (ASTM D 412-87)	480 psi (3,3 MPa)
Ultimate Tensile (ASTM D 412-87)	1400 psi (9,6 MPa)
Ultimate Elongation (ASTM D 412-87)	750%
Die C Tear (ASTM G-21)	150 pli (26,3 KN/m)
Moisture Absorption - 7 days in H ₂ O	Wt. Gain 1.8%

Selection Chart

Product #	Use Range inches	(mm)
EC-1	0.46 - 0.82	(11,6 - 20,9)
EC-2	0.63 - 1.18	(15,9 - 30,1)
EC-3	1.02 - 1.94	(26,0 - 49,2)
EC-4	1.79 - 3.32	(45,5 - 84,3)

Maintenance

3M Cold Shrink End Caps EC-Series are stable under normal storage conditions. The end caps are not impaired by freezing or overheating due to ambient temperatures encountered during shipping or storage. Normal storage and stock rotation are recommended.

3M[™] Cold Shrink End Caps EC-Series

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.

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