Cold Shrink Tubes & Cable Accessories

EPDM Halogen-Free | Peroxide- or Sulfur-Cured | Model: AN102 / AN103 / AN104

PRODUCT OVERVIEW

Mirabel Energy USA cold shrink cable accessories are manufactured from halogen-free EPDM rubber using peroxide or sulfur curing — delivering superior mechanical flexibility, dielectric integrity, and long-term environmental sealing performance. Pre-stretched over a removable plastic core, cold shrink products install without heat guns, open flames, or special tooling. Once the core is removed, the tube contracts uniformly around the cable, creating a self-pressurized 'living seal' that expands and contracts with thermal cycling and cable movement. Ideal for environments where open flames are prohibited, including oil and gas facilities, refineries, offshore platforms, and underground utility vaults.

APPLICATIONS

- Medium voltage cable splicing and termination (up to 35 kV)
- Cable insulation, sealing, and environmental protection
- Oil rigs, refineries, and environments prohibiting open flame
- Cold climate installations where heat shrink performance degrades
- Underground vault and direct burial cable joint protection
- Substation and switchgear cable entry sealing

KEY FEATURES & SPECIFICATIONS

- EPDM halogen-free construction — peroxide or sulfur cured (per ISO 37 / IEC 60502-4 / GB/T 12706-4)
- Pre-stretched on removable core — no heat gun, no flame, no special tools
- Living seal — self-pressurizes and tracks cable diameter under thermal cycling
- Operating temperature: -55°C to 90°C (EPDM) / -60°C to 200°C (Silicone)
- Rated up to 35 kV dielectric service
- Excellent resistance to UV, ozone, moisture, and chemical exposure
- Self-extinguishing flame resistance | Halogen-free | RoHS compliant
- Models AN102 / AN103 / AN104 — custom sizes available

TECHNICAL DATA

Property	EPDM Value	Silicone Value	Test Method
Tensile Strength	≥8.0 MPa	≥6.0 MPa	ISO 37
Elongation at Break	≥350%	≥400%	ISO 37
Operating Temp. Range	-55°C to 90°C	-60°C to 200°C	IEC 60502-4
Voltage Rating	Up to 35 kV	Up to 35 kV	IEC 60502-4
Dielectric Strength	≥25 kV/mm	≥20 kV/mm	IEC 243
Water Absorption	≤0.5%	≤0.3%	ASTM D570
Flame Resistance	Self-extinguishing	Self-extinguishing	UL 224
Halogen-Free	Yes (EPDM)	Yes	IEC 60754

PART NUMBERS
AN102 · AN103 · AN104
Custom sizes available on request

STOCKING LOCATIONS
Reno, NV · Houston, TX
Standard & custom lengths stocked

OEM REPRESENTATIVE
GCP Energy LLC
portal.gcpenergy.us · Salt Lake City, UT

Heat Shrink Tubing & Cable Accessories

Polyolefin · Kynar® · EVA | 2:1, 3:1, and 4:1 Shrink Ratios | Low to Medium Voltage

PRODUCT OVERVIEW

Mirabel Energy USA heat shrink products deliver high mechanical strength, reliable electrical insulation, and durable environmental protection across a full range of cable splicing, termination, and bundling applications. Manufactured from cross-linked polyolefin, Kynar®, or EVA compounds, heat shrink tubing activates with a standard heat gun to conform tightly to irregular cable geometries — providing a rigid, abrasion-resistant finish ideal for industrial, utility, and data center infrastructure. Available in standard 2:1 shrink ratio for general use and heavy-wall 3:1 / 4:1 constructions for demanding mechanical protection and strain relief requirements.

APPLICATIONS

- Cable splice insulation, termination, and strain relief
- Wire bundling, identification, and environmental protection
- Connector and terminal insulation in switchgear and MCC panels
- Data center power cable management and protection
- Industrial and utility cable repair and overmolding
- Corrosion protection on bus bars and overhead conductor connections

KEY FEATURES & SPECIFICATIONS

- Cross-linked polyolefin construction — 2:1 standard, 3:1 / 4:1 heavy-wall available
- Shrink activation at 90°C minimum using standard heat gun
- Operating temperature range: -55°C to 135°C
- High mechanical strength and abrasion resistance — rigid protective finish
- Self-extinguishing flame resistance per UL 224 / IEC 60684
- Available in Kynar® (PVDF) for chemical resistance and high-temp applications
- EVA formulations available for increased flexibility at low temperatures
- Halogen-free grades available | RoHS compliant | Custom lengths and colors

TECHNICAL DATA

Property	Standard Polyolefin	Heavy Wall	Test Method
Shrink Ratio	2:1	3:1 / 4:1	–
Operating Temp.	-55°C to 135°C	-55°C to 135°C	UL 224
Tensile Strength	≥10.5 MPa	≥13.8 MPa	ASTM D638
Elongation at Break	≥200%	≥300%	ASTM D638
Dielectric Strength	≥15 kV/mm	≥20 kV/mm	ASTM D149
Flame Resistance	Self-extinguishing	Self-extinguishing	UL 224
Voltage Rating	Low–Medium kV	Low–Medium kV	IEC 60684
Halogen-Free	Grade-dependent	Grade-dependent	IEC 60754

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Insulating Rubber Goods & Electrical PPE

ASTM D120 / IEC 60903 Rated | Class 00 through Class 4 | Live-Line Utility Grade

PRODUCT OVERVIEW

Mirabel Energy USA insulating rubber goods provide the critical last line of protection for lineworkers, substation technicians, and electrical maintenance personnel working on or near energized equipment. Our rubber goods portfolio spans the full voltage classification spectrum from Class 00 (500V) through Class 4 (36 kV), manufactured to ASTM D120 and IEC 60903 standards for gloves, blankets, sleeves, line hose, and protective covers. All products are designed for electrical utility, industrial maintenance, and substation commissioning applications — providing dielectric protection, arc flash insulation, and OSHA/NFPA 70E compliance support.

APPLICATIONS

- Live-line distribution and transmission switching operations
- Substation maintenance, commissioning, and testing work
- Motor control center (MCC) and switchgear panel maintenance
- OSHA / NFPA 70E arc flash and shock hazard PPE compliance
- Transformer and bushing cover protection during energized maintenance
- Cable splicing and underground vault work near energized conductors

KEY FEATURES & SPECIFICATIONS

- Full voltage class range: Class 00 (500V) through Class 4 (36 kV)
- Manufactured to ASTM D120, D1048, D1049, D1050, D1051 / IEC 60903
- Natural rubber or EPDM construction — superior flexibility and dielectric strength
- Gloves, blankets, sleeves, line hose, hoods, and specialty covers available
- Supports OSHA 29 CFR 1910.137 and NFPA 70E PPE Category compliance
- Tested and certified — individual test records traceable by serial number
- Annual re-testing and inspection program support available
- Compatible with leather protector gloves for mechanical protection overlay

TECHNICAL DATA

Product	Voltage Class	Standard	Typical Use
Class 00 Gloves	500V AC	ASTM D120 / IEC 60903	Low voltage live-line work
Class 0 Gloves	1,000V AC	ASTM D120 / IEC 60903	Distribution switching
Class 2 Gloves	17,000V AC	ASTM D120 / IEC 60903	MV substation maintenance
Class 4 Gloves	36,000V AC	ASTM D120 / IEC 60903	HV transmission work
Insulating Blankets	Up to 36 kV	ASTM D1048	Equipment & bus coverage
Line Hose	Up to 35 kV	ASTM D1050	Conductor insulation
Insulating Sleeves	Up to 36 kV	ASTM D1051	Arm/elbow protection
Hoods & Covers	Up to 35 kV	ASTM D1049	Transformer/xfmr cover

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