General Cable Corporation, headquartered in Highland Heights, Kentucky, is a global leader in the development, design, manufacture, marketing and distribution of copper, aluminum and fiber optic wire and cable products and systems for the energy, industrial, specialty, construction, and communications markets.
As an experienced electrician for over 30 years, I was trained using EMT or Rigid conduit and never considered any other method. I have discovered that sometimes change is a good thing. I was recently introduced to STABILOY® Brand MC Cable and decided to give it a try. I now consider STABILOY Brand MC Cable as my first option. I have literally saved thousands of dollars on labor and material using STABILOY Brand MC Cable. Installation is so much easier that I now use apprentice-level electricians for most of my Feeder and Sub-feed installations. I am proof that if a company wants to make a larger profit on any project, you must consider STABILOY Brand MC Cable first.

Tom Metroyanis
Electrical Contractor
Over 30 years experience in the electrical industry
Compared to Copper, STABILOY® Brand Aluminum Alloy Features Superior Conductivity, Insulation & Termination.

A single pound of aluminum does the work of two pounds of copper when carrying current.

**CONDUCTIVITY** – It’s true. Aluminum conductors carry twice the electrical current per pound as copper conductors. This is a significant performance advantage that utilities depend on for the national power grid. In feeder cable applications, the same performance advantage of aluminum can be realized by using STABILOY® Brand aluminum alloy instead of copper.

**INSULATION** – No question about it. STABILOY Brand aluminum alloy conductors feature superior insulation. In fact, the cross-linked polyethylene (XLPE) insulation on STABILOY Brand conductors performs better in cold impact, wet electrical and long-term aging tests. This makes it a better insulation for every application.

**TERMINATION** – Why mix metals? STABILOY Brand aluminum alloy conductors terminate safely with industry standard dual-rated aluminum lugs. The “similar metals” connection eliminates thermal expansion mismatch, which translates into a safe and reliable termination.

### Electrical Properties

<table>
<thead>
<tr>
<th>Wire Type</th>
<th>THHN/THWN-2 – Polyvinylchloride (PVC)</th>
<th>XHHW-2 – Cross-Linked Polyethylene (XLPE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wire Insulation</strong></td>
<td>Thermostatic</td>
<td>Thermostet</td>
</tr>
<tr>
<td><strong>Minimum Installation Temp °C</strong></td>
<td>-10°C (14°F)</td>
<td>-40°C</td>
</tr>
<tr>
<td><strong>Emergency Overload Temp °C</strong></td>
<td>105°C</td>
<td>130°C</td>
</tr>
<tr>
<td><strong>Maximum Short Circuit Temp °C</strong></td>
<td>150°C</td>
<td>250°C</td>
</tr>
<tr>
<td><strong>Insulation Resistance after 12 wks (Meg - 1000 ft.)</strong></td>
<td>0.85</td>
<td>105,250</td>
</tr>
</tbody>
</table>

BEST

STABILOY® Brand
MC CABLE
**Value Add**

**Labor Value Comparison**

*Metal Clad Cable versus Single Conductor*

- 53% reduction in installation time* compared to “easy to pull” single parallel conductors in EMT
- 46% of typical installation labor comes from the installation of the steel conduit

---

**Conductor Choice**

<table>
<thead>
<tr>
<th>Color Code</th>
<th>Task</th>
<th>Al Single Conductor in EMT</th>
<th>Easy to Pull Product in Parallel in EMT</th>
<th>Al MC Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pull</td>
<td>212</td>
<td>137</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>Conduit</td>
<td>186</td>
<td>186</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Junction Box</td>
<td>180</td>
<td>180</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Channel Support</td>
<td>52</td>
<td>52</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Lube</td>
<td>70</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Phase ID</td>
<td>20</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Reels</td>
<td>70</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

*Installation time calculated in minutes

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**Total Value Comparison**

There’s no question that everyone is looking for ways to cut costs without cutting quality. That’s when using “no conduit” STABILOY® Brand MC Cable is the answer. By switching from traditional conduit and copper wire installations to STABILOY Brand MC Cable, you can, without question, realize significant savings – up to 50%.

An RS Means study established that STABILOY Brand MC Cable provides a 46% savings over traditional pipe and copper wire installations.

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**Copper Run (500-500-500-500-3) Length Total Cost**

<table>
<thead>
<tr>
<th>Copper Run (500-500-500-500-3)</th>
<th>Length</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 kcmil</td>
<td>546.87ft</td>
<td>$2,187.75</td>
</tr>
<tr>
<td>#3 AWG Cu</td>
<td>598.46ft</td>
<td>$59.85</td>
</tr>
<tr>
<td>3“ EMT Conduit</td>
<td>2057.40ft</td>
<td>$205.74</td>
</tr>
<tr>
<td>Total for Copper wire in conduit</td>
<td></td>
<td>$2,453.34</td>
</tr>
</tbody>
</table>

**MC Cable Run (750-750-750-750-3/0) Length Total Cost**

<table>
<thead>
<tr>
<th>MC Cable Run (750-750-750-750-3/0)</th>
<th>Length</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 kcmil Al</td>
<td>2201.50ft</td>
<td>$880.60</td>
</tr>
<tr>
<td>3/0 Wg Al</td>
<td>497.00ft</td>
<td>$49.70</td>
</tr>
<tr>
<td>Total for Al MC Cable</td>
<td></td>
<td>$930.30</td>
</tr>
</tbody>
</table>

• The weight advantage of STABILOY Brand aluminum alloy means half the feeder material costs versus traditional installations
• STABILOY Brand MC feeders offer a superior value with the elimination of metal conduit and a reduction in material costs bringing more value to the equation
• Metal pricing for estimation purposes only and not guaranteed. Metal prices derived from LME at time of printing.

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**STABILOY Brand MC Cable’s All-In-One Assembly Provides Installation Security**

- XHHW-2 conductors in aluminum armor protect against conductor damage during the pull
- No insulation scraping or damage from conduit burrs
- Conductor integrity means long-term reliability
- STABILOY Brand MC Cable assemblies meet UL 1569
- Each STABILOY Brand MC Cable assembly is 100% tested for quality
Jacketed STABILOY® Brand MC Cable

Performance

STABILOY Brand MC Cable with PVC jacket provides added durability, long-term reliability and installation security on your job site.

- PVC jacketed STABILOY Brand MC Cable can be direct buried, used in wet locations or encased in concrete
- Each assembly is 100% tested for quality

With the added durability of the PVC jacket, jacketed STABILOY Brand MC Cable is a better choice for many applications. It is listed for direct burial, for use in cable tray and for sunlight resistance. A prime example is for utilization in feeder applications within multi-family residential and similar commercial constructions.

STABILOY Brand MC Cable with PVC Jacket Applications:
- Outdoors
- In wet locations (Type XHHW-2 conductors)
- Direct buried
- Encased in concrete
- Temporary power
- As aerial cable on a messenger
- Certain hazardous locations

General Cable stocks a selection of sizes of jacketed and unjacketed STABILOY Brand MC Cable for immediate availability.

Aluminum Alloy Armor

Ease-of-Use

STABILOY Brand MC Cable has strong, lightweight, aluminum alloy armor that weighs less than steel armor and is easier to strip back.

- The all-in-one assembly means fewer installation steps, saving you time and money on the job site

General Cable’s interlocked aluminum armor type STABILOY Brand MC Cable is designed for above-ground applications. The distinctive features unique to STABILOY Brand MC Cable provide a significant savings in installation cost and time. It is quicker and easier to install than conventional pipe and wire and is the product of choice for many electrical contractors.

STABILOY Brand MC Cable Applications:
- For service entrance and feeders
- For power lighting and signal circuits
- Indoors
- Where exposed or concealed
- In cable tray
- In certain hazardous locations
- In dry locations and embedded in plaster finish on brick or other masonry except in damp or wet conditions
- Interior temporary power

For more information on General Cable, call 1.855.720.2792.
STABILOY® Brand MC Cable

**Superior Insulation**

*Color phase identification* with three wide color stripes embedded within the surface of the cross-linked polyethylene insulation.

*Sunlight-resistant, moisture-resistant and flame-retardant insulation,* which enhances the life of the cable by fending off environmental elements that can cause deterioration.

*Heavy metals-free* insulation is RoHS compliant and environmentally sustainable while providing excellent long-term performance.

*Exceptional insulation* – the cross-linked polyethylene (XLPE) insulation on STABILOY Brand aluminum alloy conductors performs better in cold impact, wet electrical and long-term aging tests, making XLPE a better insulation for every application.

*Denotes compliance to RoHS, Directive 2002/95/EC.

General Cable is a proven manufacturer. STABILOY Brand MC Cable, a superior aluminum alloy feeder cable, is 100% tested for quality. STABILOY Brand MC Cable is available with or without a PVC jacket.

**Designed to Your Advantage:**

- All-in-one assembly offers fewer installation steps, dramatically reducing installation time
- Requires only one reel of cable per run versus up to five reels for conductors in conduit
- Strong, lightweight, aluminum alloy armor weighs less than steel armor and is easier to strip back
- Not limited to 360 degree bend rule, eliminating the need for pull boxes and elbows

**STABILOY Brand Aluminum Alloy**

**Conductivity**

STABILOY Brand aluminum alloy conductors carry twice the electrical current per pound as copper conductors. This is a significant performance advantage that utilities depend on for the national power grid. In feeder cable applications, the same performance advantage of aluminum can be realized when using STABILOY Brand aluminum alloy instead of copper.

**Confidence**

You can rest assured. If aluminum is the utility companies’ preferred choice for carrying power all the way from the generator to the grid, it’s the right choice for the last 100 feet of power delivery – feeder cable.

**Quality**

Every foot of STABILOY Brand aluminum alloy feeder cable is 100% tested for quality – so its reliability, durability and safety are all guaranteed!

- Environmentally friendly with a RoHS* compliant, lead-free and cadmium-free PVC jacket
- Suitable for wet locations, direct burial, encased in concrete and other uses per NEC®
- Overall flexibility not available with a conduit
- Factory tested engineered product that protects conductors from damage during installation
- Meets or exceeds requirements of the NEC, as well as applicable UL® Standards

All this provides significant savings over traditional conduit and copper wire installations. For ease-of-use and significant cost savings over conventional pipe and wire installations, choose STABILOY Brand MC Cable.

*Denotes compliance to RoHS, Directive 2002/95/EC.
Fittings
STABILOY Brand MC Cable works well with a variety of fittings. STABILOY Brand aluminum alloy construction terminates safely with industry standard dual-rated aluminum lugs. The following is a list of suggested fitting manufacturers:

- ADALET PLM
- American Connectors
- Appleton
- Arlington
- Bridgeport
- Crouse-Hinds
- O-Z Gedney
- Thomas & Betts

Please consult your local STABILOY Brand Manufacturer’s Representative or a General Cable Field Application Engineer for more information on installation methods and accessories.

Sizes and Options
- Sizes 6 AWG – 900 kcmil
- With or without a PVC jacket
- Custom constructions and oversize neutrals upon request

Markings
The cable assembly is identified with a marker tape placed under the wrapping tape. The legend on the marker tape includes,
GENERAL CABLE TYPE MC-ST1 STABILOY® Brand AA-8030 AL 600 V (UL) FOR CT USE (NOT “ST1” ON JACKETED MC UNLESS SO MARKED) NOM ANCE “SEQUENTIAL FOOTAGE”.

Applications
Feeder size STABILOY Brand MC Cable is a much better alternative to the traditional pipe and wire method because it dramatically reduces installation time. STABILOY Brand MC Cable is approved for use in many applications including cable tray, power, lighting and signal circuits as well as in certain hazardous locations as permitted in Articles 501, 502, 503 and 504.

Ideal applications include:
- Medical
- Hospitals
- Casinos
- Commercial Buildings
- High-Rise Buildings
- Schools
- Renovations
- Stadiums and Arenas
- Temporary Power
- Parking Garages
- Fairgrounds
- Industrial Cable Tray
- Condominiums / Apartments / Loft Buildings

Through-Penetration Fire Stop Systems
UL SYSTEMS #W-L-3041
Fire Rating: 2 hours
Temperature Rating: 1/2 hour
Assembly: Wall assembly, 2 hour gypsum wall board
Penetrating Item: STABILOY Brand Type MC Cable – with or without PVC jacket
Firestop Product: 3M Company Fire Stop Sealant Types FB-2000 or FB-2000+ as applicable

UL SYSTEMS #C-AJ-3041
Fire Rating: 3 hours
Temperature Rating: 1/2 hour
Assembly: Floor or wall assembly, 4 1/2” light or normal weight concrete or block wall
Penetrating Item: STABILOY Brand Type MC Cable – with or without PVC jacket
Firestop Product: 3M Company Fire Stop Sealant Types FB-2000, FB-2000+, or FB-2003 (floors only) as applicable

Minimum Acceptable Bend Radius for Interlocked Armor
Minimum radius = (7) x (diameter of metallic sheath)

Example: STABILOY Brand MC Cable – 750 kcmil – 4 conductor with 3/0 AWG ground
- Overall diameter of metallic sheath = 2.86”
- Minimum bend radius = (7) x (2.86”) = 20.51”
- Minimum diameter of wheel = (2)(20.51”) = 41.02”
- Use wheel with 42” diameter or larger

Minimum Acceptable Bend Radius for Interlocked Armor
Minimum radius = (7) x (diameter of metallic sheath)

Example: STABILOY Brand MC Cable – 750 kcmil – 4 conductor with 3/0 AWG ground
- Overall diameter of metallic sheath = 2.86”
- Minimum bend radius = (7) x (2.86”) = 20.51”
- Minimum diameter of wheel = (2)(20.51”) = 41.02”
- Use wheel with 42” diameter or larger
<table>
<thead>
<tr>
<th>Sub Assembly Type</th>
<th>Conductor Size (AWG or kcmil)</th>
<th>Diameter (inches)</th>
<th>Length (Feet)</th>
<th>Reel Size (inches)</th>
<th>Weight (LBS/1000 FT)</th>
<th>OC Device Rating *75° C (AMP)</th>
<th>Ampacity *75° C (AMP)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Three Conductor With Ground</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-6-6-6</td>
<td>0.61</td>
<td>0.83</td>
<td>0.93</td>
<td>1000</td>
<td>38x22x18</td>
<td>38x22x18</td>
<td>230</td>
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<td>4-4-4-6</td>
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<td>1.00</td>
<td>1000</td>
<td>38x22x18</td>
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<td>291</td>
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<td>2-2-2-6</td>
<td>0.77</td>
<td>1.00</td>
<td>1.09</td>
<td>1000</td>
<td>38x22x20</td>
<td>42x28x20</td>
<td>384</td>
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<tr>
<td>1-1-1-4</td>
<td>0.90</td>
<td>1.12</td>
<td>1.22</td>
<td>1000</td>
<td>42x28x20</td>
<td>42x28x20</td>
<td>485</td>
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<tr>
<td>1/0-1/0-1/0-4</td>
<td>0.96</td>
<td>1.18</td>
<td>1.28</td>
<td>1000</td>
<td>42x28x20</td>
<td>42x28x20</td>
<td>576</td>
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<tr>
<td>2/0-2/0-2/0-4</td>
<td>1.05</td>
<td>1.28</td>
<td>1.38</td>
<td>1000</td>
<td>48x28x24</td>
<td>48x28x24</td>
<td>888</td>
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<tr>
<td>3/0-3/0-3/0-4</td>
<td>1.13</td>
<td>1.36</td>
<td>1.46</td>
<td>1000</td>
<td>48x28x24</td>
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<td>816</td>
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<tr>
<td>4/0-4/0-4/0-2</td>
<td>1.27</td>
<td>1.55</td>
<td>1.67</td>
<td>1000</td>
<td>60x28x28</td>
<td>60x28x28</td>
<td>995</td>
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<td><strong>Four Conductor With Ground</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-6-6-6-6</td>
<td>0.70</td>
<td>0.92</td>
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<td>1000</td>
<td>38x22x18</td>
<td>38x22x20</td>
<td>278</td>
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<td>4-4-4-4-6</td>
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<td>1.35</td>
<td>1000</td>
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<td>1.34</td>
<td>1.43</td>
<td>1000</td>
<td>42x28x20</td>
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<td>840</td>
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<tr>
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<td>1.19</td>
<td>1.41</td>
<td>1.51</td>
<td>1000</td>
<td>48x28x24</td>
<td>48x28x24</td>
<td>872</td>
</tr>
<tr>
<td>3/0-3/0-3/0-3/0-4</td>
<td>1.32</td>
<td>1.58</td>
<td>1.70</td>
<td>1000</td>
<td>48x28x24</td>
<td>48x28x24</td>
<td>1051</td>
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<tr>
<td>4/0-4/0-4/0-4/0-2</td>
<td>1.46</td>
<td>1.73</td>
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<td>1000</td>
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<td>250-250-250-250-1</td>
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<td>2.11</td>
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<td>1000</td>
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<tr>
<td>300-300-300-300-1</td>
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<td>2.29</td>
<td>2.41</td>
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<td>2189</td>
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<td>350-350-350-350-1</td>
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<td>2.61</td>
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<td>2.69</td>
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<td>1000</td>
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<td>3177</td>
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<tr>
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<td>3.10</td>
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<td>1000</td>
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<td>60x28x28</td>
<td>3799</td>
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<tr>
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<td>3.04</td>
<td>3.35</td>
<td>3.46</td>
<td>1000</td>
<td>60x28x28</td>
<td>60x28x28</td>
<td>4473</td>
</tr>
<tr>
<td><strong>Unique from General Cable Four Conductor With Ground (for Parallel Runs)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>250-250-250-250-1</td>
<td>400/0/2</td>
<td>400/0/2</td>
<td>400/0/2</td>
<td>400/0/2</td>
<td>400/0/2</td>
<td>400/0/2</td>
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</tr>
<tr>
<td>500-500-500-500-2/0</td>
<td>600/0/2</td>
<td>600/0/2</td>
<td>600/0/2</td>
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<tr>
<td>500-500-500-500-250 &amp; 600/0/2, 1200/0/4*</td>
<td>600/0/2, 1200/0/4*</td>
<td>600/0/2, 1200/0/4*</td>
<td>600/0/2, 1200/0/4*</td>
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<td>600/0/2, 1200/0/4*</td>
<td>600/0/2, 1200/0/4*</td>
<td>600/0/2, 1200/0/4*</td>
</tr>
</tbody>
</table>

Notes:
1. Lengths cut to order. Other sizes and configurations available upon request.
2. Diameter of conductor assembly without armor, diameter of cable with armor, and diameter of cable with PVC jacket over armor.
3. The rating of the overcurrent device shown above is in accordance with the NEC® for single runs. See 240.4 and 240.6. Also, see 110.14 and Table 310.15(B)16 of the NEC.
4. Number of cables run in parallel.

Phone: 1.855.720.2792
Fax: 1.800.547.8249
www.stabiloy.com
Form No. BW-0058-0213