

Consequences of Using Non-Conforming Electrical Feeder Cables

Over the past several years the North American electrical products industry has experienced an influx of products manufactured in various parts of the world that do not meet the safety and performance standards established for our market. These non-conforming products span the entire product range of our industry, including aluminum feeder cables. Non-compliant electrical products are of great concern because of the serious safety implications they can have to the entire industry.

What matters when deciding on feeder cable usage?



Insulation



Metals



Wire Size

- **How does product non-conformance relate to feeder cables?**

This is a product quality issue. Products that do not meet the recognized product industry standards in North America may not meet the performance and safety expectations we have all come to depend on for our homes and buildings.

Recent sample testing of suspected substandard electrical cable found the cable was not in compliance with UL 44 or UL 1581 product requirements.

- **What products are most often appearing with the UL label and are non-compliant?**

To date, to our knowledge, there have been reports of non-compliance of both XHHW-2 and MC Cable products.

- **What are some ways non-conforming products can be inferior to those meeting the required standards?**

Based on concerns expressed to General Cable from members of the building construction industry, we have completed internal testing and commissioned third-party testing of feeder cable products thought to be non-conforming. Our testing program has yielded some startling results.

Samples of suspected substandard XHHW-2 conductors tested have shown that these conductors failed the required flame tests, do not meet UL standards for tensile strength, have insulation material that does not meet minimum wall thickness, and have conductor material that exceeds maximum UL diameter requirements.

Initial testing of MC Cable products suspected as non-conforming has shown that the cable armoring does not comply with crush standards, fails the horizontal flame test, fails the tightness standard, and the conductor material does not meet the minimum UL standard for tensile strength.

Yet, these samples exhibit the UL Regulatory approval mark indicating compliance with applicable product safety standards.

- **Can a contractor be liable for damages and losses arising from a non-compliant product?**

Yes. Contractor liability arises from damage caused by the product. Contractors need to understand the risk they undertake as the installer of non-compliant feeder cable. By purchasing and installing non-compliant products, contractors risk exposing themselves to liability

for product failures and any resulting safety issues. In the event of long term product reliability issues, there may be no recourse for building owners and contractors who have issues with electrical product quality or performance.

General Cable understands that the electrical contractor may be legally responsible and consequently should be wary of any product that is not produced by an approved manufacturer, certified by a nationally recognized testing service and sold by a wholesale electrical distributor.

General Cable's testing program has yielded some startling results on non-compliant feeder cable products

- **Are non-compliant products priced the same as locally manufactured products?**

No, non-compliant cable is often priced lower than compliant product. If the price appears too good to be true, you should be extra vigilant in your research of the product's quality and manufacturing process. Contractors should always ask their supplier about the manufacturing plant location before they buy because with these non-compliant products there is no guarantee of quality or safety.

For a more detailed white paper on non-complaint feeder cables, go to www.stabiloy.com