Learn more about Cold Shrink

The advantage of Inward pressure

Heat shrink products exert no inward pressure once it is shrunk into its final configuration w. Therefore, they do not expand and contract with the cable insulation, as it goes through load cycles. Over time, this may cause issues with heat shrink accessories. When a cable thermally expands, it will also expand the heat shrink material, but because of the rigidity of heat shrink and the crystalline regions, the heat shrink material will not shrink with it. After about 8-10 years, this may cause an interface issue on medium voltage accessories.

Cold shrink products are different from heat shrink products in that the cross-linked materials are always trying to get to a smaller diameter and therefore always exert inward pressure on the object they are shrunk on. The inward pressure allows the cold shrink products to expand and contract with the cable.

When the cable expands with higher temperatures due to ambient temperature and higher currents, the cold shrink expands outward, which slightly increases the interface pressure between the cold shrink product and the cable. As the cable contracts when the load and/or ambient temperature decreases, the cold shrink products also contract with the cable to maintain the high interface pressure between the cable and the product. The inward pressure provides excellent electrical performance and an excellent environmental seal, without the use of mastics or adhesives. 3M™ Cold Shrink Products are designed to provide inward pressure for more than 50 years.

Do you want to know more? Please call a 3M representative.

Electrical Markets Division
3M Austin Center
Austin TX 78753 USA