



Recommended Cable-Pulling Lubricants for Cable Jackets Made From Dow DFDE-1638 EXP2 Non-halogen Compound

Dow has completed testing of DFDE-1638 EXP2 according to the IEEE Standard 1210-2004 Test protocol for pulling lubricants. Test specimens of these products were exposed to the American Polywater Corp. cable-pulling lubricants Dyna-Blue® and Polywater G. Tensile property percent retention met the requirements specified by the standard. Based on these test results, Dow recommends the use of these lubricants with cables jacketed with DFDE-1638 EXP2. Dyna-Blue® may be the preferred lubricant, which according to American Polywater Corp. has better lubrication characteristics.

Background

Although a variety of cable pulling fluids are commercially available, not all are suitable for all applications. The use of a lubricant that is incompatible with a polymeric cable jacket material can result in deterioration of physical properties and damage to the jacket, both during the cable pull and afterward when the cable is in use. One accepted method of assessing the relative compatibility of cable-pulling lubricants with specific jacket compounds is the IEEE Standard 1210-2004. The test procedure calls for the immersion of jacket specimens in a bath of cable pulling lubricant at elevated temperatures for specified time periods. Following the aging, the tensile strength and elongation of the immersed specimens is tested and compared to controls of both unaged specimens and specimens aged in water or air. Satisfactory performance is based upon the retention of tensile properties as a percentage of the control samples.

The use of other lubricants with Dow non-halogen jacket compounds is not recommended unless immersion testing is completed and satisfactory performance is achieved according to the IEEE Standard 1210-2004 test protocol.