# Electric Utility - Conductor Creep Correction

Per Clause 10.7 of the IEEE 524 (2016) Standard (IEEE Guide for the Installation of Overhead Transmission Conductors) it is recommended that conductors not be allowed to hang in the stringing blocks for more than 24 hours before being pulled to the specified sag. IEEE 524 states that if this time is exceeded, you should contact the conductor manufacturer to determine if a short time creep correction factor is required.

IEEE 524 also recommends the total time that conductors are allowed to remain in the stringing blocks, from installation until clipping, should not be more than 72 hours. It is recognized that the "72 hour total time limit" may be challenging for construction crews to always meet. However, it must be noted that the longer the conductor sits in the stringing blocks, the greater the risk that the conductor could become mechanically damaged. If the 72 hour time limit is exceeded, it is recommended that the conductor be inspected (especially where the conductor makes contact with the stringing blocks) for damage to see if any of the strand wires were flattened or broken from high winds buffeting the conductor while sitting in the blocks. There is also the potential that while the conductors were sitting in the blocks under tension the unprotected conductors may have been subjected to Aeolian vibration damage. This form of damage generally manifests itself on the inside of the conductor and may not be visible on the outside of the conductor.

Creep correction curves provide a temperature adjustment based on the tension and time that the conductor was hanging in the stringing blocks before sagging. Examining the creep correction curves reveals that the 72 hour temperature correction adjustment at 10% or less of the rated tensile strength (RTS) is small (see Figure 1 for an example creep correction chart). Sagging charts are typically created in 10°F increments and crews will extrapolate a 5°F interval. For the 10% RTS situation, the 72 hour temperature correction is generally less than 5°F in magnitude. While slight creep may be introduced into the conductor, the affect at these low tensions for shorter time periods is considered to be minimal and the sagging creep correction may be omitted.

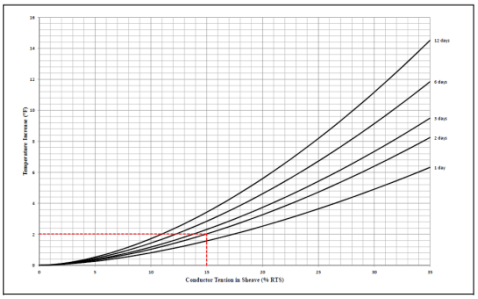

Figure 1 - Creep Correction Curve – 24/7 ACSR

In consideration of when to apply Creep Correction, General Cable recommends the following:

**Stringing and Sagging Situation 1:**
If the tension on the conductor is greater than 10% of the conductor's rated strength during either the installation of the conductor or while the conductor is snubbed off and sitting in the blocks then the conductor should be sagged within 24 hours. If more than 24 hours elapses then it is recommended that creep correction be applied when the conductor is sagged.

**Stringing and Sagging Situation 2:**
If the tension on the conductor is less than 10% of the conductor's rated strength during both the installation of the conductor and while the conductor is snubbed off and sitting in the blocks then the conductor should be sagged within 72 hours. If more than 72 hours elapses then it is recommended that creep correction be applied when the conductor is sagged.

Please contact your General Cable sales representative for individual AAC, AAAC, ACAR, ACSR and AACSR overhead conductor creep correction curves.