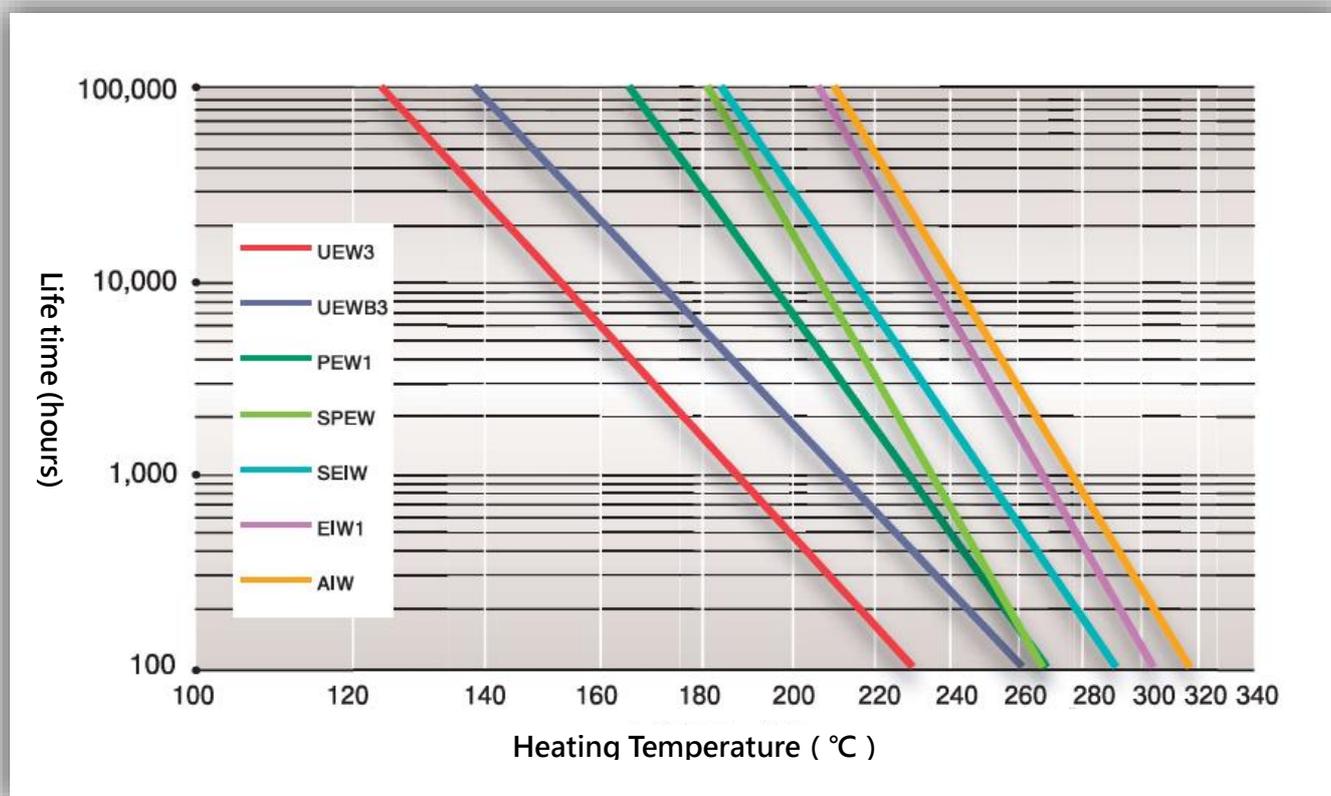


エナメル銅線の特性 Characteristics of Enameled Copper Wire

耐熱寿命曲線 Thermal Endurance Life Curve



クレージングについて About Crazing

クレージングとは、電線の絶縁皮膜に、曲げ又は伸ばす等の歪み(残留応力)を与え、ここに水、有機溶剤などが接触することで、微細な亀裂(クレーズ)が生じることをいいます。線に3%前後の伸びを与えた時に、最も顕著にこの現象が現れます。この亀裂が進行すると絶縁皮膜の役目を果たせなくなります。

巻線直後の絶縁皮膜には歪みが生じています。生じた歪みを取り除く為には、予備加熱(100~130°C程度の音頭で、10~20分間)が有効です。予備加熱をすることでクレージングは完全に防ぐことができます。

Crasing refers to the formation of fine cracks (crazes) in the insulation coating of a wire. This phenomenon occurs when mechanical stress such as bending or stretching (residual stress) is applied to the insulation and the stressed area comes into contact with water, organic solvents, or similar substances. The effect is most pronounced when the wire is subjected to an elongation of approximately 3%.

As these cracks progress, the insulation coating can no longer perform its insulating function.

Immediately after winding, residual stress remains in the insulation coating. Preheating is effective in relieving this stress. Preheating at approximately 100–130°C for 10–20 minutes can completely prevent crasing.

