

Thermal Aging Tests On XLPE And PVC Cable Insulation Materials Of Saudi Arabia

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Summary

Saudi Arabia has four cables manufacturers, and one raw polymer material producer. XLPE and PVC are the most widely used materials in cable insulation industries. The severe weather environment of the Kingdom adds tremendous factors in stressing insulations and shortens their lifetime. The study presents preliminary results of a comprehensive thermal aging investigation on medium and high voltage cable insulation materials using different analytical techniques; especially weight loss method, to determine how 'good' and 'safe' are the insulation materials used in cables manufacturing. Since weight loss is a significant physical property that considered to be influenced by thermal degradation, this method is used as a diagnostic procedure to detect the degree of aging.

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