

Generator Stator Rewedge

Stator Wedges are considered the most critical component of the stator insulation system after the bar insulation.

Tests Performed

- Wedge Tightness Test
- Wedge Mapping – Automated / Manual



Each OEM has their own Wedge Design with various designs being utilized over the past 30 years. The OEM has a specified wedge material that meets their particular design requirements. These Materials have evolved with new technology. The most important material properties for Stator wedges include:

- Dimensional Stability at high temperatures
- Flexural Strength
- Compressive Strength
- Impact Strength
- Abrasiveness

The Stator wedge performance for the long term is predominately determined by the material selection, wedge design, and proper rewedging techniques.



Recommendations for Rewedge Project:

- Review the current insulation material system – wedge design & wedge material
- Wedge Tightness Test results previously taken compared to the current results:
 1. Length of time in service
 2. Wedge tightness changes over past tests
 3. Effectiveness of any previous rewedges to determine the integrity of the wedges, in terms of Rewedge life cycle & severity of wedge tightest problems.
- Order new wedges for the generator design
- Insulation Material needed based on type of wedge system & material specifications
 - Low Shrink Black Canvas, Grade LSBC is similar to grade CE but is made using a fine weave, treated cotton fabric and a special phenolic resin that exhibits low shrinkage and improved thermal stability in normal generator operating conditions, and has become the material of choice due to:
 1. Best performing canvas phenolic grade available on GE & GE Licensee Generators.
 2. Outstanding temperature resistance (155C) & mechanical strength, halogen free material on ABB, Alstom, Brush, & Licensee Generators.
- Let **AGTServices** do the rest

Summary

- Wedge tightness test evaluates the integrity of your slot support system
- Determine if a new Wedge System is needed
- Ensure the right wedge design & material is used
- **AGTServices** has the capability & knowledge to perform all the recommendations listed above.

