



CABLE TESTING

Capabilities Statement

Our specialist cable testing facilities are operated in partnership with Professor Vincent Rouillard of Victoria University who has 30 years' experience in the experimental evaluation of the thermo-mechanical characteristic of cables. Over this time, we have developed significant expertise and specialist experimental facilities to perform a broad range of investigations and bespoke tests for cables and cable installations. Our laboratories contain state-of-the-art equipment that is fully maintained and calibrated by NATA-registered laboratories.

Overhead cable test facility

- Short-term tensile characteristics (stress-strain) - AS 3822. 12 m span, 300 kN capacity
- Breaking strength - AS 3822. 12 m span, 300 kN capacity
- Coefficient of thermal elongation - AS 3822. 12 m span, 150°C maximum
- Creep characteristics - AS 3822. 8 m span, 100 kN capacity, temperature controlled up to 150°C
- Geometric characteristics (diameter, lay-length, density) - AS 3822
- Heat radiation - AS/NZS 3560.
- Suspension and support fitting performance tests – AS1154.3
- Vibration self-damping characterisation. 12 m span
- Vibration fatigue - AS 3822

Wire characteristics

- Tensile characteristics (stress-strain) - temperature controlled up to 200 °C.
- Tensile strength & elongation - AS 1391
- Annealing strength tests
- Torsion tests - AS 2505.5
- Wrap tests - AS 2505.5
- Hardness tests
- Wire creep tests - temperature controlled up to 200 °C
- Zinc coating measurements - AS 2331.2.1

Thermo-mechanical and bespoke tests for composite HV cable installations

- Axial stiffness measurements. At room and elevated temperatures
- Flexural stiffness measurements. At room and elevated temperatures
- Torsional stiffness measurements. At room and elevated temperatures
- Thermal expansion and elongation measurements. 150°C maximum
- Cyclic loading tests (temperature controlled)
- Bespoke joint and clamp tests
- Dilatation joint mechanical performance evaluation
- Strain measurements
- Joint resistance evaluation
- Joint bay thermo-mechanical performance tests
- Remote / in-situ vibration monitoring and analysis
- Vibration mitigation design, implementation and evaluation

Contact

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