

Tests of Conveyor Belt Material

By The Instron Applications Team

Summary

Cyclic tests were run on conveyor belt material in accordance with ISO 9856.

Description of Tests

Cyclic tests were conducted on two rectangular pieces of conveyor belt. An Instron 5569 test instrument with a 10 kN load cell and a noncontacting video extensometer with a 200 mm Field of View (FOV) lens to measure strain were used. Two white strips of adhesive material were placed on the specimens at about 100 mm separation to mark the gauge length. Each specimen was initially loaded to 45 lb. The gauge length was automatically measured at that point and the test began. The test cycled between 180 lbs and 900 lbs at a crosshead speed of 3 in/min. This resulted in an approximate 0.1 Hz frequency for 200 cycles.

Conclusions

Cyclic tests are a useful method for evaluating material characteristics under long-term use. Such testing is advantageous to evaluate quality control processes. It is important to note that compression techniques should be used to prevent excessive data collection.

Apparatus

- Model 5569 with 10 kN load cell
- 100 kN wedge grips with 50 mm wide faces
- Video extensometer with 200 mm FOV lens