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Test Report

Object: Test of CEJN compressed air supply tubes for compliance to EN 14593:2005 and EN 14594:2005. § 6.8 and 6.12.1 - 6.12.9.

Samples received: 2014.04.22 and improved version 2014.09.23

Sample description: 2 samples of 10 m black compressed air supply tube with a green stripe NBR ID 3/8", product number 19 900 9910 with attached quick connect coupling 10 342 1004 and 10 342 5004. The tube was marked (embossed): CEJN Breathing Hose H.S.F - EN14593-1/2 - EN 14594 - 15 BAR - 2014 - 57A27.

Method: EN14594:2005. § 7.2, 7.7.1, 7.6, 7.8.2, 7.10, 7.11, 7.12 and EN ISO 8031.

Test period: 2014.04.28 to 2014.06.13 and 2014.09.23 to 2014.10.06

Results:

The tests are listed according to requirements in EN14594:2004. At the time of testing Accreditation 65 did not cover clauses marked with *.

§ 7.7.1 Storage conditioning

Before any other testing the tubes were conditioned 11 hrs at 60°C and 95% R.H followed by 11 hrs at - 30°C.

§6.12.1 Resistance to kinking

With a supply pressure of 3,5 bar 120 l/min was passed through each tube and they were exposed to the kinking. No reduction in flow was observed. The tube did not visually kink.

§6.12.2 Resistance to collapse

With a supply pressure of 3,5 bar 120 l/min was passed through the tube and exposed to the 1000 N load (compression). No reduction in flow was observed.

§ 6.12.3 Strength

A 1000N force was applied for 5 min to the tubes, the female-CEJN coupling was connected to a fixture with CEJN coupling. Both tubes were leaktight before and after the test.

§6.12.4 Flexibility

The tube was pressurised to 15 bar and without difficulty wound around a cylinder of 300 mm diameter.

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*§6.12.5 Heat resistance

An air flow of 120 l/min and supply pressure 3,5 bar was passed through the tube. 100 mm of the tube was pressed against a surface of 130 °C and a further part 150-200 mm immersed in boiling water. The air from the tube was passed through a long path gas cell and infrared spectra of the air before, during and after the test were recorded. No change in air was observed in any of the spectra, the level was clearly less than 2 ml/m³ calculated as heptane. Additionally the tube was pressurised to 10 bar and exposed to the hot plate for 15 min. No deformation of the tube was found.

*§6.12.6 Electrostatic properties

The resistance between the connections in the two ends was 15 MΩ for both tubes.

§6.12.7 Couplings

The tube was fitted with CEJN safety couplings, the female coupling was self sealing.

§6.12.8 Resistance to air pressure

The tube was hydrostatically pressurised to 30 bar for 15 min. During and after the test there was no visible damage or deformation, except the tube may have been slightly longer during test.

§6.12.9 Flammability

Pieces of "as received" tube were tested at two places. No ignition or deformation occurred.

§6.20 Leaktightness

At required times during the testing the tubes were tested for leaktightness by serial coupling of two tubes and dipping the coupling in water while the tubes were pressurised to 15 bar.

Conclusion

The samples of CEJN compressed air supply tube 19 900 9910 with attached quick connect coupling 10 342 1004 and 10 342 5004 as tested fulfilled the relevant requirements of EN 14594:2005 §6.12 class B and EN 14593:2005 §5.15.

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