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Test report for a Teldor Cables 'SLA-6-01X08-ZAHRH-DD' Fibre Optic cable to IEC 60331-25:1999

Prepared for:
Teldor Cables & Systems Ltd
Ein-Dor
Kibbutz Ein-Dor 19335
Israel

16 March 2011

Test report number 269714

UKAS TESTING

0578

Protecting People, Property and the Planet

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1 Introduction

The requirement of the work was to determine the performance of a cable when subjected to the requirements of IEC 60331-25:1999 [1].

The client for this work was Teldor Cables & Systems Ltd., Kibbutz Ein-Dor 19935, Israel. The client’s purchase order number was EPO1100838.

2 Details of sample received and tests carried out

The cable was a nominal 12.5mm diameter, 8 fibre cable comprising a single gel filled loose tube with 8 off buffered optical fibres, glass reinforcing yarns, laminated foil tape, moisture barrier, rip cords, corrugated steel armour and a HFFR outer sheath. The outer sheath had the following printed marking:

'TELDOR CABLES SLA-6-01X08-ZAHRH-DD 2009'.

Product information is given in Teldor Cables & Systems Ltd. Product Specification 'SLA-038 Revision A 08/07/09'. The client's reference for the cable was 'SLA-6-01X08-ZAHRH-DD'.

The test specimen was supplied by the client and received on 15 March 2011. BRE Global was not involved in the sample selection process and therefore cannot comment upon the relationship between samples supplied for test and the product supplied to market.

The test was undertaken on 15 March 2011 in the presence of Mr Z. Mazal representing Teldor Cables & Systems Ltd. The test was conducted in accordance with IEC 60331-25:1999 and this report should be read in conjunction with it.

Attenuation measurements were recorded using Teldor Cables & Systems Ltd's Anritsu Optical Power Meter and Anritsu Stabilised Laser Source at a wave length of 850nm.

3 Test result

The client specified a flame temperature of 950°C and an application time of up to 180 minutes with a 15 minute cool down period. The burner temperature was 974°C verified in accordance with the procedure given in IEC 60331-11:1999 [2].

The maximum change in attenuation recorded during the test was 0.31dB. The graph of attenuation verses time is given in Figure 1.

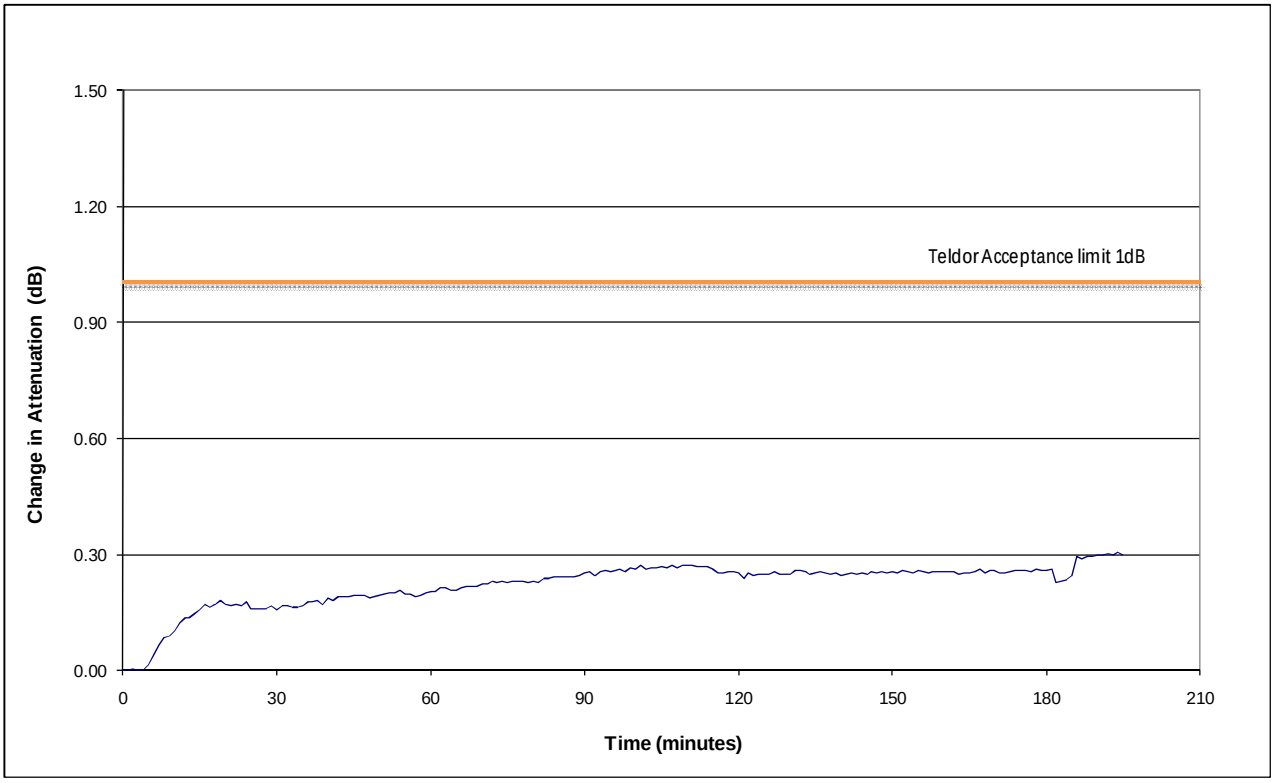

Figure 1 - Attenuation versus time - Teldor Cables & Systems Ltd. 'SLA-6-01X08-ZARHR-DD' cable

4 Conclusion

The client’s requirement was that the maximum change in attenuation recorded during the test shall not exceed 1.0dB

Therefore the Teldor Cables & Systems ‘SLA-6-01X08-ZAHRH-DD’ cable met the 1.0dB change in attenuation requirements when tested to IEC 60331-25:1999 at 974°C for 180 minutes followed by a 15 minute cool down.

5 References

1. IEC 60331-25:1999, ‘Tests for electric cables under fire conditions - Circuit integrity - Part 25: Procedures and requirements - Optical fibre cables’, International Electrotechnical Commission, Geneva, Switzerland, 1999.

2. IEC 60331-11:1999, Tests for electric cables under fire conditions - Circuit integrity - Part 11: Apparatus - Fire alone at a temperature of at least 750 °C’, International Electrotechincal Commission, Geneva, Switzerland, 1999.

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