

**Test report of a National
Cables Industry
CU/XLPE/SWA/LSF
BS 6724 4x4.0mm² cable
to BS EN 50266-2-4:2001**

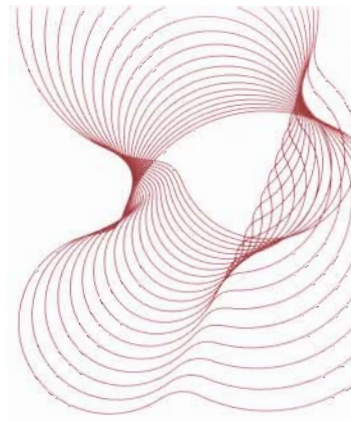
Prepared for:
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21 January 2011

Test report number 268193-1



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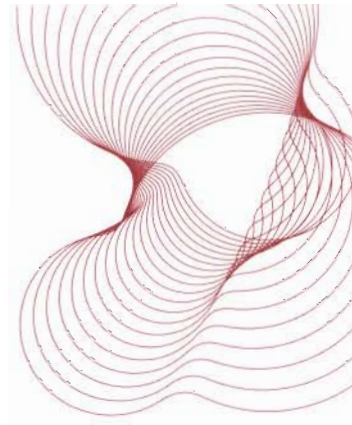
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Executive Summary

BASEC Order number: D2TTP558

BASEC Client: National Cables Industry, P.O. Box 27472, Al Dhaid Road, Al Sajja Industrial Area, Sharjah, United Arab Emirates

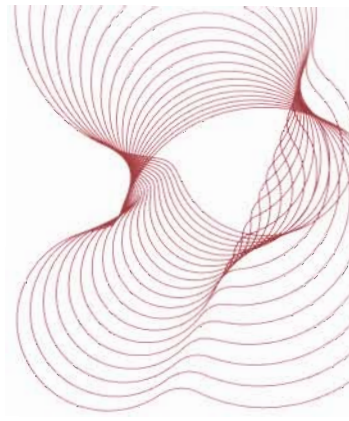
Product: CU/XLPE/SW/LSF BS 6724 4x4.0mm²

Test Undertaken: BS EN 50266-2-4:2001

Performance requirement: Extent of char no greater than 2.50m above the base of the gas burner.

Measured performance: 0.66m

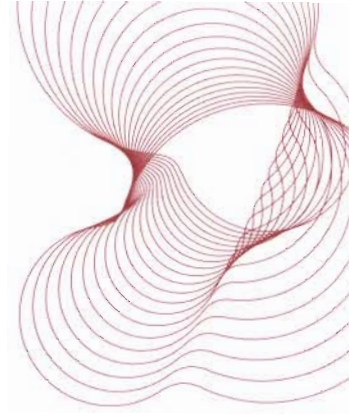
Conclusion: The cable satisfied the performance requirement in Annex B of BS EN 50266-2-4:2001



1 Introduction

The requirement of the work was to determine the performance of a cable when it is subjected to the conditions specified in BS EN 50266-2-4:2001, 'Common test methods for cables under fire conditions - Tests for vertical flame spread of vertically-mounted bunched wires or cables – Part 2-4: Procedures – Category C' [1].

The client for this work was BASEC, Milton Keynes, UK. The client's order number was D2TTP558.



2 Details of sample received and test carried out

The cable tested was an 18.2mm diameter, 4 core cable comprising 4 off 4.0mm² insulated stranded copper conductors, bedding, wire armour, armour tape and a black over sheath. The over sheath had the following embossed marking:

'ELECTRIC CABLE 600/1000V - 4X4 MM2 CU/XLPE/SWA/LSF - BS 6724 NATIONAL CABLES INDUSTRY, U.A.E., 2010'

No material product information was supplied.

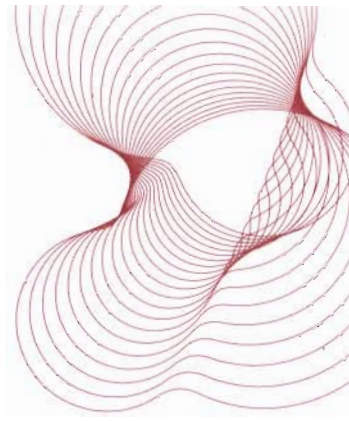
The cable manufacturer was National Cables Industry, P.O. Box 27472, Al Dhaid Road, Al Sajja Industrial Area, Sharjah, United Arab Emirates.

The test specimen was supplied by the client and received on 4 January 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 conducted on 5 January 2011. Prior to the test being carried out, the cable specimen was conditioned at a temperature of 20°C ±10°C for a period of at least 16 hours.

The test was conducted and reported in accordance with the procedure specified in BS EN 50266-2-4:2001, and this report should be read in conjunction with it.

A single 20 kW gas burner was used with a flame application time of 20 minutes.



3 Determination of the cable quantity

The non-metallic volume of the cable, calculated as defined in BS EN 50266-2-4:2001, was found to be 0.2052 l/m.

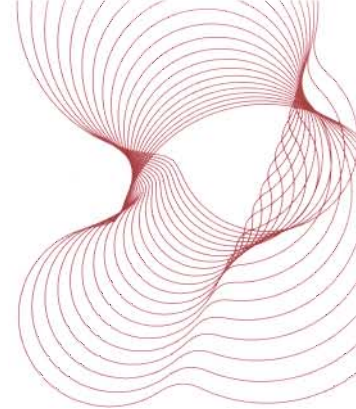
The client required the cable to be tested to Category C, for which BS EN 50266-2-4:2001 defines a non-metallic volume for the cable of 1.5 l/m. Therefore 7 lengths of cable were tested.

The cables were fixed to a 500 mm wide ladder. The cable's diameter required a single layer of 7 cables fixed across the centre of the ladder.

4 Test result

The gas burner was switched off after 20 minutes at which time all flaming ceased.

The maximum extent of charring on the sample, measured after the test, was 0.66m above the bottom edge of the burner.



5 Conclusion

The recommended performance criteria given in Annex B of BS EN 50266-2-4:2001 is as follows:

'The maximum extent of the charred portion measured on the sample shall not have reached a height exceeding 2.5 m above the bottom edge of the burner'.

Therefore the National Cables Industry CU/XLPE/SWA/LSF BS 6724 4x4.0mm² cable satisfied the recommended performance criteria of BS EN 50266-2-4:2001.

6 Reference

- 1 BS EN 50266-2-4:2001, 'Common test methods for cables under fire conditions - Tests for vertical flame spread of vertically-mounted bunched wires or cables – Part 2-4: Procedures – Category C', British Standards Institution, London, 2001.

=====REPORT ENDS=====