

WARRES NO. L14970

IEC 754-1: 1982

TEST ON GASES EVOLVED DURING COMBUSTION
OF ELECTRIC CABLES

DETERMINATION OF THE AMOUNT OF HALOGEN
ACID GAS EVOLVED DURING THE COMBUSTION
OF POLYMERIC MATERIALS TAKEN FROM CABLES

THE PROFESSIONALS IN FIRE SAFETY •

Warrington
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CONSULTANCY • TESTING

TEST REPORT

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SPONSORED BY

MIDDLE EAST SPECIALIZED CABLES LTD
PO Box 60536, Riyadh 11555, Saudi Arabia



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PURPOSE OF TEST

To determine the performance of a specimen of the component of a cable when it is subjected to the conditions of the test specified in IEC 754-1: 1982 "Test on gases evolved during combustion of electric cables. Part 1: Determination of the amount of halogen acid gas evolved during the combustion of polymeric materials taken from cables".

SCOPE OF TEST

IEC 754-1: 1982 specifies a method of test for the determination of the amount of halogen acid gas, other than hydrofluoric acid, evolved during the combustion of compounds based on halogenated polymers and compounds containing halogenated additives taken from cable constructions.

DESCRIPTION OF THE CABLE

The description of the cable given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

The product was a two core cable having an overall diameter of 10.8mm and consisting of 1.5mm² copper conductors, polymeric insulation and black polymeric outersheath.

The outersheath of the cable was marked "HFFR 2X1.5mm² 600/1000V MESC 1995".

The cable was supplied by the sponsor of the test on 28 December 1995. Warrington Fire Research Centre was not involved in any selection or sampling procedure.

DATE OF TEST

The test was performed on 12 January 1996.

TEST PROCEDURE

The test was performed in accordance with the procedure specified in IEC 754-1: 1982 and this report should be read in conjunction with that Standard.

TEST RESULTS

The test results relate only to the behaviour of the specimen under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential hazard of the product in use.

The test results relate only to the specimen of the cable component in the form in which it was tested. Small differences in the composition of the product may significantly affect the performance during the test and may therefore invalidate the test results. Care should be taken to ensure that any product which is supplied or used is fully represented by the specimen which was tested.

The results obtained are given in Table 1.

TABLE 1

COMPONENT TESTED	Hydrochloric Acid Yield mg/g		
	RUN 1	RUN 2	AVERAGE
Outersheath	<5	<5	<5
Insulation	<5	<5	<5

CONCLUSION

When tested in accordance with IEC 754-1: 1982 the hydrochloric acid yield from all materials tested was found to be < 5mg/g.

Responsible Officer



S. KUMAR
Manager - Standard Testing

Approved



R. J. SHAW
Director
for and on behalf of
WARRINGTON FIRE RESEARCH CENTRE

Date of issue: 17 February 1996