



Report

## Fire tests on 'Q-MAX' colour filter film

Date 30 April 2007



For the Benefit of Business and People



Report

## Fire tests on 'Q-MAX' colour filter film

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## 1 Introduction

This report refers to the e-mail dated 18/04/2007 relating to fire tests on a colour filter film. As requested, the sample film was assessed for ignitability using standard laboratory tests.

The sample was identified as follows: -

No.	Lab Ref No.	Description
1	3826	'Q-MAX' red polyester filter film. Nominal weight of the sample 84g/m <sup>2</sup> , nominal thickness 0.08mm

## 2 Procedure

The sample was submitted by the Client: Bureau Veritas was not involved in sample selection. The samples were tested in accordance with the requirements for flammability as defined in BS 3944 : 1992 Colour and diffusion filter material for theatre, television and similar entertainment purposes: Part 1, Specification for flammability and dimensional stability.

## 3 Results

The results of the tests using BS 3944 : Part 1 1992 are summarised in the attached Test Report A26589.

“This small scale laboratory test is solely for assistance in monitoring consistency of production. The following test results are not intended and are not to be used as a means of assessing the potential fire hazard of a material in use.”

“The following test results relate only to the behaviour of the test specimens under the particular conditions of test; they are not intended, and must not be used, as a means of assessing the potential fire hazard of the material in use.”

We understand that the samples supplied to us were representative, but owing to production variations and the wide range of consumer applications, it may not have been possible to identify all potential problems.



## 4 Requirements

The criteria are summarised as follows: -

### **Dimensional stability**

After testing, all dimensions shall lie between 145mm and 155mm.

### **Duration of flaming (inclined test and strip test)**

The filter material shall not continue to flame or glow for more than five seconds after the ethanol has burned out.

### **Spread of fire (inclined test and strip test)**

Any material which may drop from the sample shall not continue to burn after it has reached the base of the apparatus.

### **Extent of burning (inclined test)**

Charring or scorching shall not extend over more than twenty per cent of the surface area of the filter material; any hole formed being regarded as part of the charred area. The length of the edge along the top of the filter material that has shown charring or scorching shall not exceed 50mm.

### **Extent of burning (strip test)**

The criterion for flammability of a strip of filter material in BS3944 differs only from the above in that the extent of burning shall not exceed 75mm along the length of the material.

## 5 Compliance

The 'Q-MAX' red polyester colour filter film (our ref. No. 3826) is considered to have met the flammability criteria in BS3944 : Part 1 : 1992, the results for which are in the attached certificate No A26589, because for each criteria not more than one test result was outside the limits specified.



## Appendix

Test report No. A26589



Client's Name and Address:

### FLAMMABILITY OF COLOUR FILTER FILM

Test Report No. **A26589**

Job Number: FGGX0239  
Date of Receipt: 23 April 2007  
Start of Test: 27 April 2007  
Date of Report: 30 April 2007

Lab Sample Ref. Nos. 3826  
Tested by: S Boys  
Authorised by (name): K Nimmo  
Authorised by (sign):

Sample details: 'Q-MAX' red polyester filter film

### Results (BS3944 : Part 1 : 1992)

#### Annex B – flammability of inclined piece of filter film (BS 2782 : Method 140E : 1982)

Specimen	1	2	3	4	5	6
Duration of after flame (s)	nil	nil	nil	nil	nil	nil
Flaming debris (✓ / ✗)	✗	✗	✗	✗	✗	✗
Charred or scorched area (%)	4.0	3.0	44.4	5.0	13.8	12.4
Charred or scorched length (mm)	nil	nil	120	nil	21	nil

#### Annex D – flammability of a strip of filter film (BS 2782 : Method 140D : 1980)

Specimen	1	2	3	4	5	6
Duration of after flame (s)	nil	nil	nil	nil	nil	nil
Flaming debris (✓ / ✗)	nil	nil	nil	nil	nil	nil
Extent of burn length (mm)	65	48	80	75	73	68

Comments: (Deviation from standard procedure, etc) None.  
Where material dropped from a specimen, it did not continue to burn after it reached the base of the apparatus. On aggregate, the sample met the criteria of BS 3944 : Part 1 : 1992.

1. Methodology: Technical procedure FT-TM21 'Determination of the flammability of thin flexible PVC sheeting' and FT-TM22 'Determination of the degree of flammability of plastics' and BS3944 : 1992 Colour and diffusion filter material for theatre, television and similar entertainment purposes, Part 1 – Specification for flammability and dimensional stability. \*This report does not have product approval\* status but shows only the results of the material or sample tested.