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Test Report: ICL/H22/15291

EN ISO 4589 - 2: 2017

**PLASTICS - DETERMINATION OF BURNING BEHAVIOUR
BY OXYGEN INDEX
PART 2. Ambient – Temperature test**

Sponsored By
Sleeve It Limited.
Unit 36 Dolly waggon Way,
South Rings, Bamber Bridge, Preston, Lancashire, PR5 6EW.

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1 Purpose of Test

To assess the performance of a material when it is tested in accordance with EN ISO 4589 - 2: 2017 "Plastics - Determination of burning behaviour by oxygen index Part 2 Ambient - temperature test.

2 Description of Test Specimen

The description of the specimen given below has been prepared from information provided by the sponsor of the test and Interscience Communications Ltd was not involved in any selection or sampling procedure.

The product was a 3.4mmthick red silicone coated glass fibre sleeving

The sponsor of the test did not provide further details relating to the composition of the sheet from which the specimens were tested.

3 Conditioning of Test Specimens

The specimens were received on 22nd June 2022.

The test specimens were conditioned at $23 \pm 2^{\circ}\text{C}$ and $50 \pm 5\%$ relative humidity for a minimum period of 88 hours prior to testing.

4 Date of Test

The test was performed on 20th July 2022.

5 Test Procedure

Test was carried out in accordance with the procedure specified in section 8 of EN ISO 4589 Part 2 and this report should be read in conjunction with this standard.

Specimens measuring nominally 140 mm long by 52mm wide by 3.4mm thick were used. The thickness of the specimens used conforms with the requirements specified in Table 2 of the Standard for test specimen Form IV.

Propagating Ignition as specified in Section 8.2.2 was used.

6 Test Results

The test results apply to the sample as received tested after conditioning. The test results relate only to the behaviour of the specimens of the product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

The test results relate only to the specimens of the product in the form in which they were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Uncertainty measurement has not been taken into account when presenting the test results.

Section 1: Determination of oxygen concentration for one pair of "X" and "O" responses at $\leq 1\%$ (v/v) O ₂ (in accordance with 8.5)										
O ₂ Concentration(%)	32	34	38	37	36	35.0	35.2	35.4		
Burn period (Sec)	0	0	180	180	180	NI	NI	NI		
Burn length (mm)	0	0	30	53	50	0	0	0		
Response (O or X)	O	O	X	X	X	O	O	O		

Section 2: determination of oxygen index (in accordance with 8.6)											
	NL series (8.6.1 and 8.6.3)					(8.6.3)				cf	
O ₂ Concentration, %(v/v)	35.6	35.8	36	36.2	36.4	36.4	36.2	36.0	36.2	36.4	
Burn perios(sec0	NI	NI	NI	120	180	180	180	110	65	180	
Burn length (mm)	0	0	0	5	30	30	15	20	5	20	
Response (O or X)	O	O	O	O		X	O	O	O	X	
Column (2,3,4 or 5):					2	Row (1 to 16) : 2					
k value from table 4:					-1.25	Hence k =					-1.25

Value of d 0.2
standard deviation 0.176

$$\begin{aligned}
 \text{OI} &= (\text{cf} + \text{kd}) &= & 36.15 \\
 & &= & 36.2 \text{ (to one decimal place for reporting)} \\
 & &= & 36.15 \text{ (to two decimal places, for calculation of and verification of d as required in section 3)}
 \end{aligned}$$

7 Conclusion

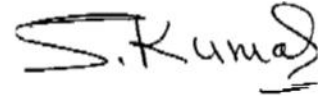
When tested in accordance with the procedures specified in EN ISO 4589-2: 2017 shows an oxygen Index value of 36.2%.

Prepared by

A handwritten signature in black ink, appearing to read "C. B. Chong".

**C. B. Chong
Fire Scientist**

Approved by

A handwritten signature in black ink, appearing to read "S. Kumar".

**S. Kumar
Technical Manager**

Date of Issue: 26th August 2022.

Annex 1 Informative

The following requirements are given in Table 5 of EN 45545-2 for R22

Test method reference	Parameter	Requirements for R22		
		HL1	HL2	HL3
T01 EN ISO 4589-2: OI	Oxygen content %	28	28	32