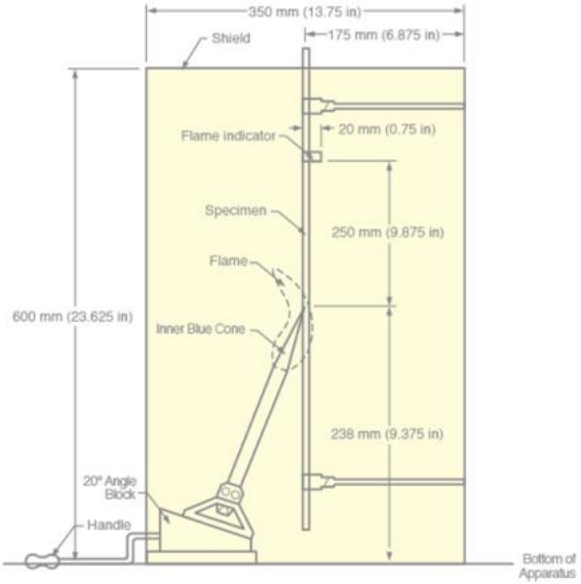
Flame Retardant

With long-term use wires and cables, short circuits or fire may occur, which can make the ca ble combustable, causing fuel fire or damage to equipment. Thus it is necessary for cables to have properties which ensure that it will not spread flames or become flammable over a peri od of time. This is called the incombustibility of the cable, also known as being flame retarda nt. If a cable lacks flame retardant properties, fire can cause serious consequences. Byson un dertake a proprietory flame test lab, including two different standards UL 1581 and IEC60332. If you want to know more information about this test, please download the full introduction.

The purpose of the fire test of cable is to examine the cables' ability to stop the spread of th e flames and to test the flame retardant properties of the cable. This test is necessary and ve ry important. The cable industry uses a wide range of fire tests; UL1581 VW - 1, IEC 60332 flam e retardant and smoke density test.

- ***UL 1581 VW-1 flame test procedures***

This tests five iterations of fire exposure, 15 seconds at a time, with a fire interval of 15 seconds. After the test, the flame burns less than 60 seconds, indicating flag burning of not more than 25%, and tests that a pad on the bottom of the cotton is not flame affected, to determine that the sample has qualified. If one out of three fails, then it is adjudged as unqualified.



Test Procedure

VW (VW-1,Optional) Determine and Test Procedure

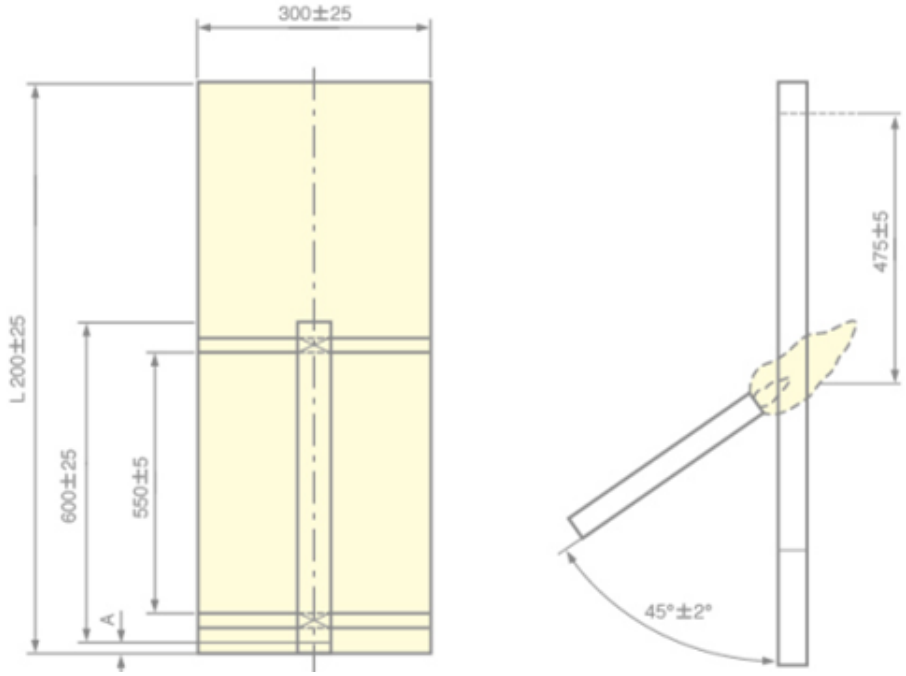
a) The5th burning time <=60s;
b) Burning area of the flag<=25%;
c) The end of cotton is lighted

Suite 2902, Tower 2, Jing An Kerry Center, 1539 West Nanjing Road, Shanghai 200040
Tel: +86 21 3330 2280 Fax: +86 21 3330 2280

www.bysonelectronics.com

- ***IEC 60332 flame test procedures***

According to the cable diameter for fire time setting, see the table below. If on the edge of the carbonized part, with distance between the starting point of more than 50mm, this is considered unqualified. If burning has affected the edge of stent with a distance of greater than 540 mm, this is also adjudged as not qualified.



Overall diameter of test piece [a] mm	Time for flame application [b] s
$D \leq 25$	60 ± 2
$25 < D \leq 50$	120 ± 2
$50 < D \leq 75$	240 ± 2
$D > 75$	480 ± 2

Cable diameter with time relationship for the fire