













UL is proud to announce the construction of a new, local fire safety testing laboratory in the United Arab Emirates (UAE) specially designed to test to standards for:

- Flame-retardant and fire-resistant cables
- Fire alarm cables
- Building wires with fire resistance ratings
- Fiber-optic component (FOC) cables with fire-resistance ratings
- Busways

Purchasers, specifiers, installers and inspectors of cables placed in risers or plenums during building construction or upgrade know cables that do not meet safety requirements present a significant risk of hastening the spread of fire. A recent surge in fire incidents — coupled with stricter regulations and newly mandatory approvals — have made testing and certification of cables a must.

As the global safety science leader with decades of dedicated experience in fire protection, UL is uniquely positioned to help the UAE region reduce fire risks, strengthen protections, better understand fire science and bring innovative fire protection equipment to market. Our fire safety testing and certification services, training offerings and expertise help us fulfill our mission of working for a safer world.

We help specifiers, distributors and the building industry identify cabling products that meet locally recognized safety requirements as well as industry specifications for performance, safety and quality. These stakeholders rely on UL to reduce the risk associated with the use of noncompliant wire and cabling products. In other words, when you work with us, you can expect to gain unparalleled recognition and acceptance from electrical inspectors and other regulatory authorities.



What a new, local fire safety laboratory means for you

The Middle East has seen an increase in regulations around the fire safety of cables. Working with a trusted partner like UL can help you meet these increased demands — which means increased efficiency. Our fire safety experts are knowledgeable about local requirements, including:

- Local civil defense codes to comply to fire resistance for cables
- Civil defense Certificate of Compliance (CoC) for cables requiring test report and certificates
- Compliance to consultant specifications for construction projects in the Middle East
- Meeting export requirements for the European Union (EU), the U.S. and Africa

This increased regulation is due in part to a recent upsurge in fire incidence made worse by counterfeit or substandard cabling. This represents an unacceptable risk — and avoidable hazard — to building occupants and owners. If cables are not constructed with proper materials, a mass of such cables used to supply power and data to critical equipment and other vital facilities in the building can substantial fire.

Once installed, cable infrastructure is typically out of sight. Because it is primarily installed behind walls, ceilings or floors, it easily be taken for granted. However, if the cables do not meet local safety requirements, the products' reaction in a fire event could lead to tragic loss of life and/or property.

At first glance, all cables might appear the same. However, cables manufactured using deficient manufacturing processes and substandard materials pose a safety threat. Without independent testing and oversight — as well as confirmed proper construction to recognized safety standards — noncompliant cables running throughout a structure can accelerate the spread of smoke and flame.

Because UL is providing a local laboratory staffed with industry-leading experts, you can expect:

- Faster turnaround times Until now, there was no option to partner with an independent laboratory for cable fire testing in the Middle East region. This factor alone will increase your time to market.
- Better regulation enforcement Having a local laboratory drives more stringent regulations for fireresistant cables in the region.
- Lower costs A local presence with global expertise helps reduce your logistics and shipping costs to markets in the EU and Asia.
- Increased choice Customers who prefer a local laboratory now have their choice of preferred partner.

Tests we perform

Our new state-of-the-art facility, with its ISO 17025 accredited test methods, is specifically designed to test cables and busways to international standards. Our fire safety staff are global industry experts with a local presence, and the new facility is specifically designed to test cable and busways fire safety. We can provide:

- Reaction to fire tests Measuring how a cable reacts when exposed to fire.
 - IEC 60332-3 vertical flame spread on bunched cables tests
 - IEC 60332-1 vertical flame propagation on single cable or insulated wire
 - Assessing acid gas emission and smoke generation
 - When cables burn, they may produce significant volumes of heat, smoke, toxic or corrosive fumes and falling flaming materials, known as burning droplets.
- Fire resistance tests: Evaluating cables' circuit integrity during a fire.
 - Demonstrate various real-life scenarios by including tests for fire alone, fire with water, fire with mechanical shock and fire with both mechanical shock and water.
 - For example, a fire alarm cable needs to be fire-resistant. If an unsuitable cable was specified for installation with the fire alarm, the unsuitable product would likely burn and degrade.

Testing to these standards

BS testing

BS 6387 — Test method for resistance to fire of cables required to maintain circuit integrity under fire conditions

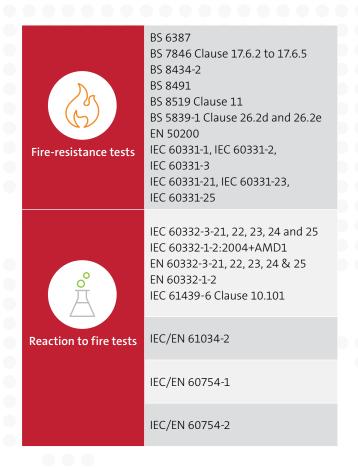
BS 7846 Clause 17.6.2 to 17.6.5 — Electric cables — Thermosetting insulated, armoured, fire-resistant cables of rated voltage 600/1 000 V for fixed installations, having low emission of smoke and corrosive gases when affected by fire — Specification

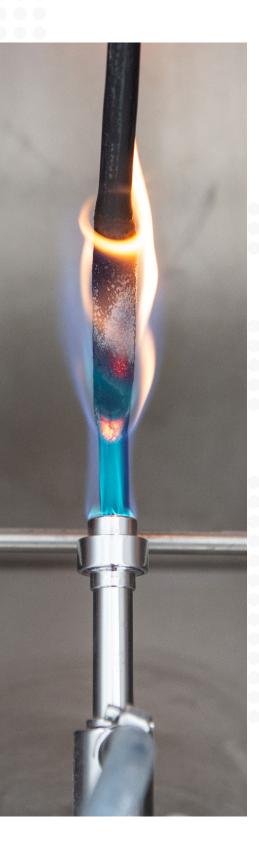
BS 8434-2 — Methods of test for assessment of the fire integrity of electric cables - Test for unprotected small cables for use in emergency circuits

BS 8491 — Method for assessment of fire integrity of large diameter power cables for use as components for smoke and heat control systems and certain other active fire safety systems

BS 8519 clause 11 — Selection and installation of fire-resistant power and control cable systems for life safety, fire-fighting and other critical applications — Code of practice

<u>BS 5839-1 Clause 26.2d and 26.2e</u> — Fire detection and fire alarm systems for buildings Part 1: Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises





EN testing

EN 50200 — Method of test for resistance to fire of unprotected small cables for use in emergency circuits

IEC 60331 testing

Tests for electric cables under fire conditions – Circuit Integrity

IEC 60331-1 — Test method for fire with shock at a temperature of at least 830 $^{\circ}$ C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter exceeding 20 mm

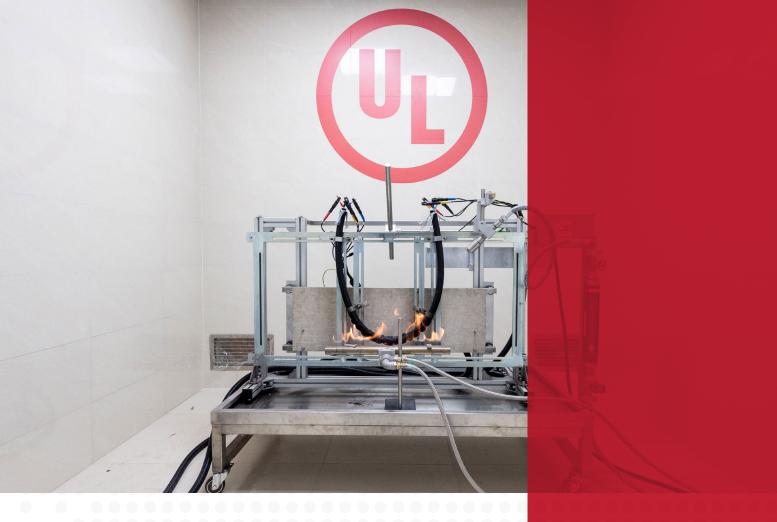
IEC 60331-2 — Test method for fire with shock at a temperature of at least 830 $^{\circ}$ C for cables of rated voltage up to and including 0,6/1,0 kV and with an overall diameter not exceeding 20 mm

IEC 60331-3 — Test method for fire with shock at a temperature of at least 830 °C for cables of rated voltage up to and including 0,6/1,0 kV tested in a metal enclosure

IEC 60331-21 — Procedures and requirements – Cables of rated voltage up to and including 0,6/1,0 kV

IEC 60331-23 — Procedures and requirements — Electric data cables

IEC 60331-25 — Procedures and requirements – Optical fibre cables



Why UL

Our long-standing history in certification and standards development makes us a trusted thought leader in the compliance arena. Stakeholders rely on us for research, knowledge and technical solutions to address safety issues and advise on new technologies.

The hazards associated with noncompliant cable present significant risks regarding the nature and scale of a fire event. Available at our new facility in the UAE, UL's robust fire safety testing for cables brings trust and confidence that such safety issues have been assessed in the products you are bringing to the marketplace.

We offer advisory and testing services to help you meet and exceed fire safety requirements. We offer research testing services for manufacturers to help design cables that comply to the necessary fire resistance/fire reactance standards. Additionally, we can help you with a Type testing report and Type examination certificate based on IEC/EN/BS standards.

As the global safety science leader, UL is uniquely positioned to help you achieve increased speed to market as well as the ability to demonstrate your commitment to fire safety to your customers. To learn more about our new facility and our cable fire safety offerings, contact us at UL.com/wirecable.

Learn more at UL.com/wirecable.



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