

CABLE CERTIFICATIONS ESSENTIAL TO ENSURE COMPLIANCE

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Certifications and approvals play a crucial role in ensuring that cables meet stringent performance standards. Essential service cables are fundamental to ensuring safety, acting as the backbone of protection systems, and are subject to rigorous testing procedures to ensure their reliability during emergency situations.

Understanding and navigating the details can be overwhelming. You may have encountered terms such as WS52W, 2HR Fire Rated, LSZH, PVC Free, PVC Best Practice, ActivFire®, GBCA guidelines, and independent third-party certification versus self-certification.

Let's take a closer look at some key terms related to cable.

ActivFire®

ActivFire® is an independently operated product certification and listing scheme. Most fire alarm system specifications list ActivFire® approvals as a base requirement to meet minimum Australian Standards (AS) and ensure independent certification on each project.

2HR Fire Rated

When exposed to fire, the cable continues to function for two hours. Mica tape is wrapped around the copper cores and, when exposed to fire, protects the cores from shorting, ensuring essential services continue to operate. The outer sheath is for mechanical protection only.

When sourcing a fire-rated cable, it is important to quantify that the cable has a two-hour fire rating—labelled 2HR Fire Rated—as cable with European Standard (EN) approvals may only have a 90-minute rating and cannot be used in AS applications where WS52W is a requirement. Refer to AS/NZS 3013, WS52W approvals.

WS52W

A WS52W rating indicates that all elements of a cabling system have passed tests defined in AS/NZS 3013 relating to Fire Resistance, Impact Resistance, and Water Spray Resistance. These tests ensure the cabling system will maintain circuit integrity for a specified time under fire conditions and from mechanical impacts during non-fire conditions. AS/NZS 3013 covers fire and mechanical performance of wiring system elements for electrical installations.

PVC Free—Low Smoke Zero Halogen (LSZH)

Halogen-free cables are required where the risk of exposure to harsh chemicals may be harmful to people (for example, in underground tunnels). All FireSense Fire Rated cables and Halogen Free TPS use LSZH materials, are completely PVC free, and have independent PVC Free certification, which can contribute to meeting Green Star target requirements.

PVC Best Practice

Products manufactured using PVC are using environmentally responsible processes and materials, and are disposed of in an environmentally friendly manner. The current highest standard is Best Environment Practice PVC v 2.0, to which FireSense TPS cables were the first in Australia to be licensed.

Producing compliant, quality cables requires a series of rigorous processes. It's highly recommended to work with a trusted cable supplier that utilises independent certification to ensure you're using the appropriate cable for your project and complying with the necessary safety standards.

What are the risks if I don't use the approved and certified cables?

Quite simply, your project won't be compliant and lives could be at risk. Non-compliant cables may fail during emergencies, leading to system malfunctions, injuries, or even fatalities. It also exposes businesses to liabilities and potentially expensive resolutions.

Who can I look to for help?

Cable suppliers are plentiful in Australia, with varying qualities and approval ratings available. We highly recommend using an independently certified cable supplier experienced within the fire and/or essential services industries to ensure they understand standards, the necessary cable approvals and certification requirements, and who can provide all necessary credentials. ■

FIRE RATED CABLE SPECIALISTS

FireSense cables have all relevant certifications and approvals, are independently certified, meet Green Building Council of Australia guidelines, and are the only full range of ActivFire®-certified fire cables in Australia. The FireSense cable range has been designed and manufactured by experts to meet the needs of the fire, electrical, and mechanical industries.

FireSense has supplied many government infrastructure projects (recently the Cross River Rail, Sydney Metro, and Westgate Tunnel) and is highly experienced in complex project requirements. The company delivers quality, expertise, high-level service, significant stock holdings, and next-day delivery.

Visit firesense.com.au for more information.

