

# FIRE SHELTER

Comprehensive  
Fire Protection



For many industrial applications, critical equipment needs to be properly protected against fire. Using our patented double-sandwich construction with glass fiber reinforced polyester and insulation layers, INTERTEC can design custom enclosures, cabinets and shelters to meet the requirements of international fire resistance standards like EN 13501: E, EI, REI30, REI60, REI90, REI120, Solas: A30, A60, A90, A120, DIN4102: F30, F60, F90, F120, as well as BS476, ISO 834, ASTM E119, and CAN4-S101.

Typical applications for FIRE SHELTERS include:

- Instrument/analytcs enclosures
- Cabinets for critical electronics
- Enclosures for Emergency Shutdown (ESD) equipment
- Larger or manned walk-in shelters





## Benefits of INTERTEC FIRE SHELTERS

All enclosures and shelters are available in a variety of custom shapes and sizes. An experienced team of engineers and CAD designers works in close collaboration with the client to match the enclosures to the equipment and fit them in the available space.



Fire standards are established to avoid the spread of fire and to prevent exposure of certain materials to high temperatures. Our FIRE SHELTERS, however, go above and beyond that:

- Extreme thermal insulation that can be configured to maintain a predefined interior operating temperature
- Custom light-weight, rigid, maintenance-free construction
- Wall penetrations for cables, interior access etc.
- Additional properties possible, e.g. blast protection
- Full protection of ESD valves, control tools and instruments
- Suitable for offshore applications



3 layers of glass-fiber reinforced polyester guarantee the integrity of our regular FIRE SHELTER. The insulation between the layered panels limits the temperature the equipment is exposed to.

The **INTERTEC FIRE SHELTER 1709** is a special variant designed to meet the high temperature requirements of UL 1709, H30, H60, H90 for hydrocarbon-based or pool fires. These fires are characterized by a very rapid rise in temperature up to 1100°C when insulating materials like mineral or glass wool would melt. A 9-layer composite GRP sandwich with additional ceramic layers protects the insulation from these temperatures for up to 2 hours, while retaining its structural integrity and keeping the temperature inside under a certain threshold.

During the fire test below, the outer layer of the box burns while the rest is being protected by thick layers of mineral wool.



The FIRE SHELTER was able to keep the interior temperature below 60°C for 2 hours. This ensures a correct functioning of the equipment during emergencies. Our solutions were tested several times by independent bodies, the results of which are available on request.

## Why GRP for fire protection?

INTERTEC was founded in 1965 with the idea of using high-tech long fibre reinforced composites for protective cabinets and enclosures. GRP is a rigid, yet lightweight glass-fiber reinforced polyester with many inherent benefits for industrial and outdoor applications.

- Same strength as steel with less than half the weight
- Naturally fire retardant
- Exceptional thermal insulation
- Condensation proof
- Leakage proof
- Corrosion resistant
- UV-resistant

Thanks to its stability and resistance, GRP enclosures enjoy a comparatively long service life of over 30 years with little to no maintenance required.

The properties and designs of our solutions can be tailored to every application. Options include:

- Protection class up to IP68
- Antistatic coating
- Blast proofing: IECEx and national standards
- Protection against storms (up to 240 km/h), shock waves or earthquakes

# INTERTEC offers more than you can see.

- Thermally insulated cabinets, enclosures, covers and shelters
- Enclosed instrument hook-ups
- Analyzer houses
- Fire protection boxes
- Heating, ventilation, cooling

- Quality engineering
- Proven designs
- CAD
- Calculations
- Easy integration
- Reliable and long-lasting operation of electronics
- Fire protection
- Explosion protection
- Comprehensive documentation
- Relevant certification
- Procurement & logistics
- Low total cost of ownership

Since its founding over 50 years ago, INTERTEC has grown to an engineering and sales organization with production facilities in Germany, Canada and the United States, as well as several sales offices worldwide. To provide technical solutions for grassroots projects and existing MRO markets, INTERTEC has a sales partner network spanning over 50 countries around the globe.

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