Certified fire protection for rolling stock
Outstanding fire protection

Do you want to secure the safest possible transportation of people and goods and avoid the risk of damage and downtime? Use our seals for cables, pipes, conduits and PMA protection systems. In addition to fire resistance, you ensure protection against water, EMI/EMP, vibration and rodents.

Roxtec is the world leader in cable and pipe seals for the rolling stock industry because we know that every component matters. Our flexible and innovative solutions are certified according to all important standards and meet the highest hazard levels to protect your rail vehicles against fire.

All leading rail business companies use Roxtec fire-proof seals.

roxtec.com/rollingstock
Our seals help you handle all hazard levels and fire integrity requirements.

**Standardized fire protection**
Roxtec seals fulfill the highest fire resistance requirements for coaches and locomotives.

- Thoroughly tested and certified
- Excellent fire safety performance
- For use inside and outside rail vehicles

**User-friendly flexibility**
Roxtec fire protection seals are quick, safe and easy to install and inspect – also in limited spaces.

- For single or multiple cables and pipes of different sizes
- Built-in spare capacity for future needs and upgrades
- Worldwide availability and local service and support

**Customized firestop solutions**
We can create tailor-made fire protection seals and arrange special fire resistance tests to cover specific needs. Just contact your Roxtec representative.

- Light-weight and space efficient cable entry seals
- Solutions for plastic and metal pipes
- High temperature resistant materials
Add our fire protection expertise

Efficient fire barriers prevent fire from spreading and gases from being transported on a train. It is crucial to provide safe areas for passengers until evacuation can be completed. By using Roxtec fire protection seals for cables and pipes, you make sure your rail vehicles get tested and certified fire barriers. Our firestops are approved according to the standards EN 45545-2, 45545-3 and NFPA 130.

Meet the requirements
Thanks to our frequent external and internal testing, we can guarantee that our seals meet the highest hazard level, HL3, and the fire integrity requirement E30. With Roxtec seals, you ensure the required time for evacuation regardless of your train’s design or operation category. You can rely on them also in trains operating in tunnels or elevated sections where side evacuation is impossible.

roxtec.com/certificates
Quality assurance testing

The Roxtec fire test lab plays a key role in the material and product development as well as in the pre-certification process. Our test and certificates engineers and test technicians prepare the tests with exactness since the sample must be tested as a system in a realistic environment. We also perform shock-wave and vibration tests as well as ingress protection tests to be able to combine E15 to E60 fire protection with high IP and UL/NEMA ratings.

Officially safe and sound

Our products are tested according to fire resistance requirements for fire barriers by internationally renowned testing and certification centers such as MPA Dresden GmbH in Germany and RISE, Research Institutes of Sweden. We are therefore able to provide any test reports you may need.

We also perform special tests for specific needs. This enables us to guarantee the fire safety performance levels of our customized solutions as well as of our materials. Our gaskets are, for example, V-0 rated, and all our sealing components enter the LS0H, low smoke zero halogen, classification. We help you cover all requirements within flammability, smoke emission and toxicity.
Numerous application areas

Roxtec fire barriers are ideal for cables, pipes and hydraulic and pneumatic lines as well as for wiring harnesses with flex conduit. Use them in your rail vehicles and include them in upcoming platforms.

- Roof-top installations
- Roof boxes
- Wall penetrations
- Floor installations
- Traction motors
- Converters/inverters
- AC systems
- Cable trenches
- Driver cab/engine room
- Switchboard panels

Performance guide

<table>
<thead>
<tr>
<th>Product name</th>
<th>EN45545:2</th>
<th>EN45545:3</th>
<th>NFPA130</th>
<th>IP rating</th>
<th>Air-shock</th>
<th>Vibration</th>
<th>Retention</th>
<th>Tested with cables</th>
<th>Tested with pipes</th>
<th>Tested with conduits (PMA)</th>
<th>Application areas</th>
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<tbody>
<tr>
<td>S transit size 1/2/3/4/5/6/7/8</td>
<td>HL3</td>
<td>E60</td>
<td>Yes</td>
<td>IP66/67</td>
<td>Yes</td>
<td>Yes</td>
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</table>

All rectangular frames and R frames are tested with RM, RM PPS and RM BG modules to secure fire safety for cables, conduits, pipes and shielded cables.
Roxtec standard solutions

Our standard multi-cable and pipe entry sealing solutions make it easy for you to design in and guarantee long-term fire protection.

The Roxtec GH is a cable and pipe seal for bolting onto steel or sandwich walls/floors. It allows for high packing density.

The Roxtec S is a multi-cable and pipe transit available in different materials and with a single or various combinations of openings.

The Roxtec R is a cable and pipe transit for use in pipe sleeves or round holes. The compression is integrated in the transit frame so it seals by expansion.

The Roxtec RS is a seal for single cables or pipes in metal sleeves or existing holes. The entry seal has two halves with removable layers making it adaptable to cables and pipes of different sizes.

Roxtec customized solutions

We provide customized solutions especially designed for rolling stock applications. They meet the fire standards and are available upon request.

The Roxtec CRF is a lightweight sealing solution with a space saving design. The sealing modules handle cables of different sizes.

The Roxtec RM PPS is a sealing module for plastic pipes. It includes intumescent material that expands in case of fire.

The Roxtec RS/C RS + CSLO is an openable seal. It is available in several standard sizes and supplied in complete kits.

The Roxtec ComSeal™ Silicone is a high temperature sealing solution for quick installation. It is supplied in kits and available in a version for bonding and grounding.

Please find more product information on roxtec.com/solutions. If you have questions or wish to order a customized solution, please contact us. You find details about your nearest Roxtec representative on roxtec.com.
Protecting life and assets

Roxtec is the world leader within flexible cable and pipe transits. Since the start in Sweden in 1990 we have grown successfully to cover all continents. Our passion is innovative sealing solutions, and our goal is to make our world a safer place.

- Extensive R&D resources and advanced test facilities
- Inventor of Multidiameter™
- Customers in more than 80 markets

Contact us and learn more online

On roxtc.com you can find information about your nearest Roxtec representative. You can also find our product selector and useful information such as certificates, installation instructions and educational videos on our fire protection seals. Enjoy videos from our test and fire labs, learn from success stories and gain access to our free, web-based engineering tool Roxtec Transit Designer™.