

Case study

# Elizabeth Line station uses ROCKWOOL® to help reduce noise

Farringdon Train Station, London





## The project

When Transport for London's new 'Elizabeth Line' opens for full passenger service in 2022, Farringdon station will become one of the busiest in the UK.

More than 140 trains per hour and an estimated 90,000 passengers are expected to pass through every day, as the new Elizabeth line connects Thameslink and the London Underground; linking outer London, the home counties, the City, Canary Wharf and three of London's five airports.

Like all Elizabeth Line stations, Farringdon has been designed to create accessible, safe, and comfortable spaces that people can move through easily and efficiently - with sound absorbing insulation playing a key role in minimising station noise for passengers and staff.

At Farringdon, two new ticket halls are connected by sub-surface tunnels. The western end located on the corner of Farringdon Road and Cowcross Street will provide access to and from the Thameslink ticket hall; the eastern end is bound by Charterhouse Street, Lindsey Street and Long Lane. This major transport interchange site has had to fit within a complex infrastructure network up to 25 metres below ground.





## The challenge

Main contractor BFK sought to minimise sound propagation along the new platforms and tunnels, creating a comfortable environment in line with the design principles of the new railway.

As well as improving acoustics within the station, BFK also had to ensure they met the strict fire safety requirements of London Underground Limited (LUL), by choosing products on the LUL approved products register.



## The solution

ROCKWOOL® products were chosen due to their confirmed acoustic qualities, and inherent non-combustible properties.

ROCKWOOL RW3 Slabs 75mm thick were installed in the perforated glass fibre and reinforced concrete tunnel linings of the platform and access areas. Being a semi-rigid product, the slabs could be easily cut and friction fitted to form an acoustic lining behind the cladding.

ROCKWOOL RW3 slabs achieve a Euroclass A1 rating in accordance with BS EN 13501-1, meeting the requirements for non-combustible materials.

"With a vast number of trains and people due to travel through this station, noise reduction was a major factor for this scheme," says Simon Webber, Section Manager, at BFK.



"ROCKWOOL was able to deliver a solution that not only helps in mitigating noise, but also provides optimum fire safety performance. This project has been built to comply with exceptionally strict fire and acoustic LUL standards that will serve the needs of Farringdon for years to come."

Simon Webber  
Section Manager  
BFK

Located in the London Borough of Islington, Farringdon is one of ten new stations along the central section of the new Elizabeth Line route, in which ROCKWOOL insulation will be installed.

The station and new Elizabeth Line service will help to increase capacity, improve accessibility, and support economic growth in the capital.

