

With over four decades of operation, the Bay Area Rapid Transit (BART) is the fifth-busiest heavy rail rapid transit system in the United States. Today, ridership numbers average in at 423,000 passengers throughout the workweek, making BART a transportation mainstay for commuters between San Francisco, East Bay and northern San Mateo County.

Challenge

BART engineers rely on consistent upgrades to keep the nearly 50-year-old infrastructure compliant with today's standards. So when conduit in the tunnel portion of the system needed to be replaced to meet new regulations for "people-moving" tunnels, procurement representatives found themselves in the market for a material that did not give off toxic gasses when burning. Additionally, the salty atmosphere surrounding the transit system meant a non-corrosive material would be a necessity for maximizing long-term performance and overall value.

Solution

Despite little experience with fiberglass products among BART's team of engineers, Champion Fiberglass agents were able to communicate the advantages of choosing Champion Fiberglass Flame Shield® Phenolic XW conduit and fittings. Specially constructed to meet the requirements of environments like the BART tunnel, this product was a lightweight, non-corrosive alternative to the heavier, more expensive and corrosive steel conduit.

It's also a safe option, as Champion Fiberglass Flame Shield® Phenolic conduit emits zero smoke, zero halogens and is two-hour fire rated (conduit that has been tested and can withstand fire at 1,850 degrees Fahrenheit for two hours).

Results

Savings » Nearly 22,000 feet of the six-inch Champion Fiberglass Flame Shield Phenolic XW conduit was installed to the underground portion of the system. Overall, BART representatives were very pleased with the construction process and the product's safety and performance.

Performance » While BART contracted an outside service company to handle the installation, they undoubtedly benefited from the reduced labor costs and time savings associated with Champion Fiberglass' lightweight, easy-to-install product.

QUICK FACTS

PROJECT NAME BART Tunnel

APPLICATION Tunnel

CHAMPION FIBERGLASS PRODUCT(s)

Flame Shield® Phenolic XW conduit and fittings

- The BART average 423,000 passengers in a workweek
- » Nearly 22,000 ft of conduit installed
- Benefited from lower labor costs and time savings