



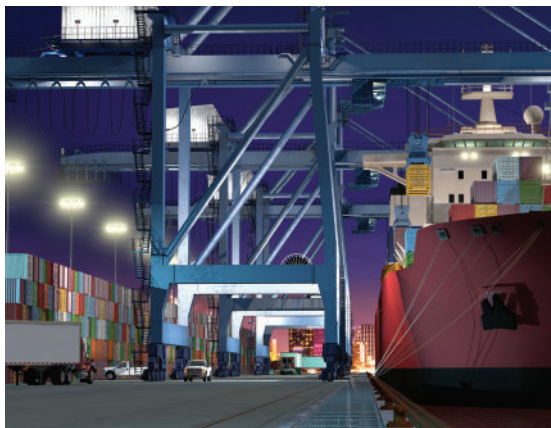
THE PVC SHORTAGE GUIDE

WHAT'S GOING ON WITH PVC ELECTRICAL CONDUIT?



Everyone in the construction industry is well aware of the current worldwide PVC shortage and its ramifications.

It began with the pandemic as some businesses closed or slowed operations while employees quarantined and isolated. Then, an active hurricane season hit Louisiana particularly hard and forced chemical plants to shut down.



If that was not enough, Winter Storm Uri forced chemical plants making resin base materials for PVC to go offline, slowing production and adding another wrinkle to the PVC shortage already in place.

In fact, Winter Storm Uri could be responsible for the loss of 5 billion pounds or more of resin production, estimates [ThePlasticsExchange.com](https://www.theplasticsexchange.com).

With strong demand and decreased production, prices of PVC products like SCH 40 and SCH 80 electrical conduit used in construction have soared and delivery times greatly increased. [The Wall Street Journal](https://www.wsj.com) reports that analysts have said it could be months more before all petrochemical plants along the Texas Gulf Coast are fully back in operation.

But there's a solution. Projects don't have to suffer through long delays and skyrocketing prices, exceeding deadlines and budgets. You don't have to wait for PVC electrical conduit.

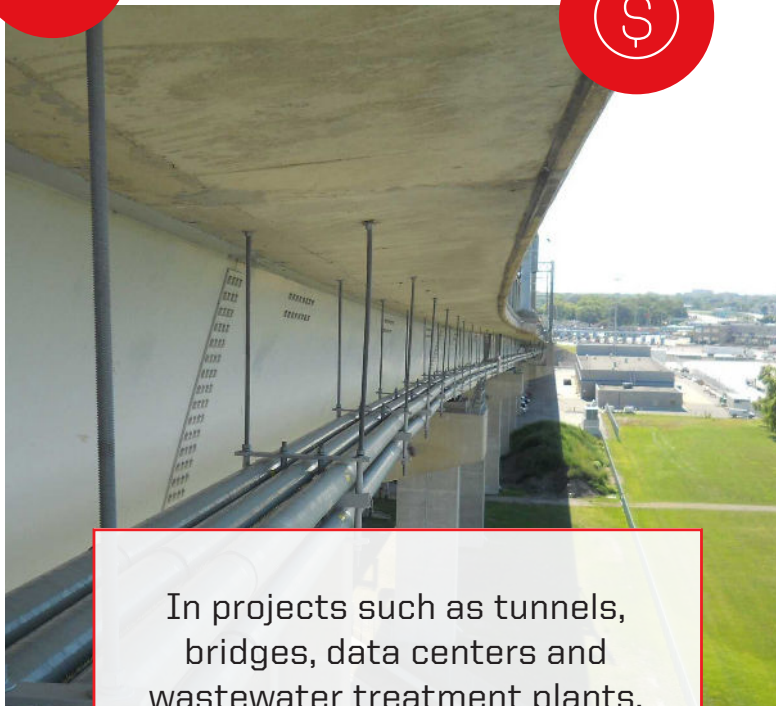
Winter Storm Uri could be responsible for the loss of **5 billion pounds** or more of resin production.



The Solution is Champion Fiberglass® conduit.

Unaffected by the PVC shortage, Champion Fiberglass® conduit is available with shorter lead times and competitive pricing.

In many cases, fiberglass conduit (RTRC) can be used in place of PVC conduit with great success. Across many applications, projects using fiberglass conduit benefit from:



In projects such as tunnels, bridges, data centers and wastewater treatment plants, Champion Fiberglass conduit can replace PVC conduit.



Learn more in this eGuide

- Get questions answered in our most popular fiberglass vs. PVC FAQs
- See a head-to-head product comparison between PVC SCH 40, PVC SCH 80 and PVC-coated steel
- Find engineering specs and details in data sheets
- See how easy installation can be
- Read success stories where fiberglass conduit was used instead of PVC
- Learn about BIM/Revit models for project planning and calculators to get project estimates fast

POPULAR PVC RELATED FAQs

Got questions about fiberglass electrical conduit? Get answers to our more popular PVC electrical conduit related questions – about applications, weight and installation – and how fiberglass conduit can be used instead of PVC electrical conduit.



Used Across Many Industries and Applications

Q. In what industries can fiberglass conduit replace PVC conduit?

A. Fiberglass conduit can replace PVC conduit in a variety of applications including commercial, industrial, construction, bridges, tunnels, data centers, utilities, and mining. Its corrosion resistance to many chemicals makes it ideal for wastewater treatment, chemical plants, and port authority/coastal environments. Not only is it lightweight for faster installation, it is also strong and durable with superior impact resistance.

The Weight Issue

Q. How does fiberglass conduit compare in weight to PVC conduit?

A. One hundred feet of 4" SW fiberglass (RTRC) conduit weighs 72 pounds, significantly lighter than comparable PVC SCH 40 at 231 lbs. Because of its lightweight nature, fiberglass conduit does not add as much weight to supporting structures as other conduit systems.



The Scoop on Easy Installation

Q. Who fares better in terms of installation rates – PVC or fiberglass conduit?

A. The NECA Manual of Labor Rates states that to install a 100-foot length of 6" diameter conduit it takes just 9 hours for fiberglass conduit. For PVC SCH 40, it takes 24 hours. This means fiberglass conduit installs faster, in one-third the time as PVC SCH 40.

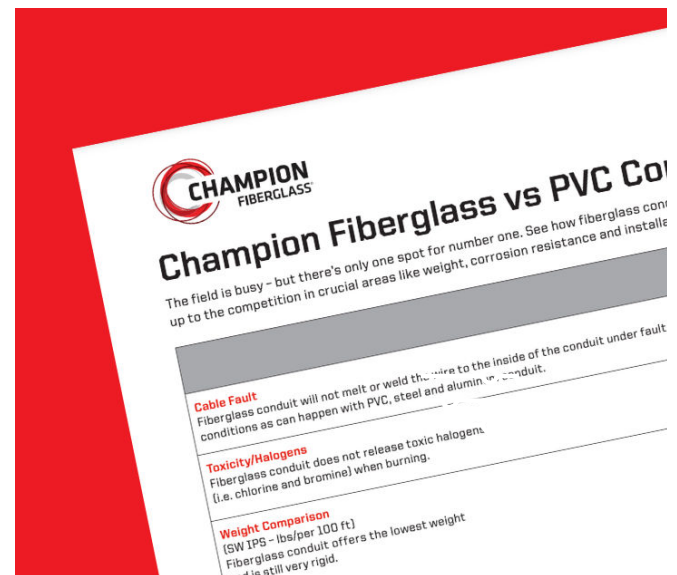
[**Read more FAQs here.**](#)

SEE A HEAD-TO-HEAD ELECTRICAL CONDUIT PRODUCT COMPARISON

To illustrate how PVC and fiberglass conduit systems compare, we've detailed product features across fiberglass, PVC SCH 40, PVC SCH 80 and PVC-coated steel in an easy-to-read chart format.

See head-to-head how they stack up regarding installation times, halogen release, cable fault, UV resistance and more.

Download the full chart [here](#).



9 Reasons Fiberglass Conduit Performs Better than PVC

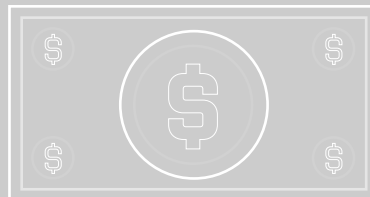


1. Competitive pricing



2. Shorter lead times

3. Light weight



4. Lower installation costs

5.



Superior compression and impact strength

6.

Lower cable coefficient of friction

7.

No elbow burn-through

8.

Broader temperature range



9.

Safety - no toxic halogens are released



DATA AND SPEC SHEETS

Find the right engineering data and information details for your project's application.

If you are unfamiliar with fiberglass conduit, allow us to help guide you in your search for details. For engineers, contractors and project managers, we offer helpful data and specs to determine whether fiberglass conduit satisfies your project requirements.

Here's a sampling of technical and engineering specs and information you will find:

- Specifications for Fiberglass Conduit Below Ground 
 - Specifications for Fiberglass Conduit Above Ground 
- Both of these documents offer a wide range of information such as specific dimensions and wall thickness of conduit and electrical characteristics like dielectric strength and surface resistivity. Mechanical characteristics include tensile and compressive strength. Additionally, there are impact resistance weights by conduit size and toxicity information. You will find even more data including environmental and manufacturing information and fittings and accessories details.

[Chemical Resistance Guide](#), where you can view results of testing by specific chemical

[Safety Data Sheets for standards, guidelines and recommendations](#) 

Engineering Requirements for UL and factory ISO information

Champion Duct® catalog 

For engineers, contractors and project managers, we offer helpful data and specs to determine whether fiberglass conduit satisfies your project requirements.

Installation Information

Discover how easy (and cost-efficient) installation can be with fiberglass conduit.

Projects using fiberglass conduit install faster than most other conduit types. Our conduit's light weight contributes to a streamlined process that makes installation simple and easy-to-follow.

Faster installation saves not only time but money. In fact, the NECA Labor Rates state that to install a 100-foot length of 6" diameter conduit takes just 9 hours for fiberglass conduit, compared to 24 hours for PVC SCH 40, 29 hours for PVC SCH 80, and 60 hours for PVC-coated steel. Faster installation means safer, more cost-effective projects.

Get all the installation details – guidelines, how-to videos and installation FAQs – in our [online installation guide](#).

Our conduit's light weight contributes to a streamlined process that makes installation simple and easy-to-follow.



[Watch installation videos.](#)

Success Stories

Read case studies where fiberglass conduit was selected over PVC SCH 40, PVC SCH 80 and PVC-coated steel. Learn more about why customers selected it and how the product contributed to favorable outcomes.

Edwardsport IGCC Power Plant

Using Champion Fiberglass conduit instead of PVC SCH 80 streamlined installation and provided savings since it eliminated the need for expensive concrete vaults.

[Read More](#)



EDWARDSPORT IGCC POWER PLANT

Duke Energy's Edwardsport IGCC plant, located in Knox County, Indiana, is one of the cleanest and most efficient coal-fired power generating facilities in the world. Beginning commercial operations in 2012, the \$1.6B megawatt facility replaces an outdated coal-fired facility located on the same site. And at full capacity will generate enough energy to power approximately a half million homes.

Challenge
For this facility, the project's concrete vaults for electrical conduit installation were not only expensive but also required the use of heavy machinery to install. The project's original design called for the use of concrete vaults for the installation of 12" and 18" conduits. The project's engineer determined that the use of concrete vaults was not necessary to protect the conduits from physical damage. Instead, the use of 12" and 18" conduits with a wall thickness of 1/2" was determined to be the most cost-effective solution. The project's engineer determined that the use of concrete vaults was not necessary to protect the conduits from physical damage. Instead, the use of 12" and 18" conduits with a wall thickness of 1/2" was determined to be the most cost-effective solution.

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QUICK FACTS

PROJECT NAME
Edwardsport IGCC Power Plant

APPLICATION
Utility

CHAMPION FIBERGLASS PRODUCTS
Champion 77 Fiberglass Conduit (12" and 18")

- Low coefficient of friction, extended the distance between concrete vaults to every 750 ft.
- ~\$3 million saved
- Greater installation efficiency, reduced labor and material costs by not bonding conduit with epoxy adhesive



MONTEREY BAY COAST GUARD PIER

Located between Enderbourn Wharf and Cannery Row along the San Diego Beach Park, the U.S. Coast Guard (USCG) Pier in Monterey serves not only as fully functioning support to USCG vessels - like the 110-foot USCGC Cutter (WMEC-915) AND - but also as a popular water-side attraction. Since 2009, this new addition to the sailing world has been supporting USCG operations and Monterey's tourism efforts alike.

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QUICK FACTS

PROJECT NAME
Monterey Bay Coast Guard Pier

APPLICATION
Port/Authority

CHAMPION FIBERGLASS PRODUCTS
Champion 77 Fiberglass Conduit (12" and 18")

- American products were required
- Haz Duct X Wall conduit handled saltwater, UV exposure and weather events
- ~3,000 ft of Champion Haz Duct XW Type conduit was installed

Monterey Bay Coast Guard Pier

Haz Duct® X Wall conduit withstands UV exposure, saltwater and weather.

[Read More](#)

Fox Metro Wastewater Treatment Plant

When the PVC coating on the rigid steel conduit in this facility's waste pits began to separate and corrode, Champion Fiberglass provided a custom solution and an installation assist.

[Read More](#)



FOX METRO WASTEWATER TREATMENT PLANT

Over the past eight decades, the Fox Metro Wastewater Treatment Plant has provided responsive and efficient pollutant removal from the raw wastewater of seven Illinois cities. Serving nearly 300,000 residents and businesses daily, the plant was plant all time to surpass federal and state water quality standards for first effluent - allowing it to be widely returned to the Fox River.

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QUICK FACTS

PROJECT NAME
Fox Metro Wastewater Treatment Plant

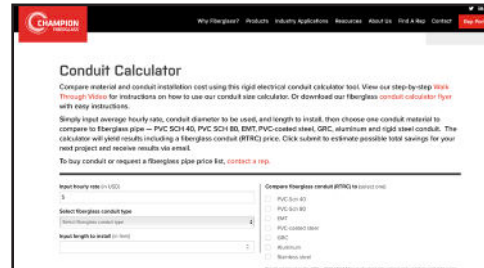
APPLICATION
Municipal/Wastewater

CHAMPION FIBERGLASS PRODUCTS
Champion 77 Fiberglass Conduit (12" and 18")

- Fox Metro serves ~300,000 residents and stakeholders
- Helped guide initial steps of installation
- Created a custom solution with roughly 8,000 ft of product

Ready for more information or to get in touch?

- ✓ **Get an estimate.**
Check out our [conduit calculator](#) where you can plug in numbers specific to your job and get a detailed estimate comparing fiberglass conduit to PVC SCH 40 and PVC SCH 80 and PVC-coated steel.



The image shows a web browser window displaying the 'Conduit Calculator' tool. The page has a red header with the 'CHAMPION' logo. The main content area is titled 'Conduit Calculator' and includes instructions for use. Below the instructions, there are two columns of input fields. The left column includes 'Input hourly rate in USD', 'Select fiberglass conduit type', and 'Input length to install in feet'. The right column is titled 'Compare fiberglass conduit (BFG) to current cost' and includes radio buttons for 'PVC SCH 40', 'PVC SCH 80', 'PVC-coated steel', 'Aluminum', and 'Steel'. A 'Calculate' button is at the bottom right.

- ✓ **Download BIM/Revit Models**
BIM/Revit models help promote collaboration and project efficiency. Get access to our library [here](#).



- ✓ **Find a Manufacturer's Representative**
Our [Find a Rep](#) tool will guide you to a rep firm in your area, when you are ready.



- ✓ **Get in Touch**
Got a specific question not answered here or a challenging job you want to talk about? Contact our helpful team: [Contact us](#).

