

# FRP Suitability Checklist Guide

A Practical Evaluation Guide for Corrosion-Intensive Industrial Environments

Fiber Reinforced Plastic (FRP) is increasingly used across chemical plants, wastewater facilities, marine infrastructure, and industrial processing environments because of its corrosion resistance, durability, and low maintenance requirements. This quick-reference checklist helps engineers, maintenance teams, and procurement professionals evaluate whether FRP may be a suitable solution for their operational environment.

## Corrosion & Environment

- ■ Is your facility exposed to chemicals, moisture, or saltwater?
- ■ Are metal structures showing signs of rust or coating failure?
- ■ Does corrosion frequently lead to maintenance shutdowns?

## Operational Requirements

- ■ Do you need materials with lower maintenance requirements?
- ■ Is reducing downtime a priority for your operations?
- ■ Are lightweight structures important for installation or structural load reduction?

## Safety Considerations

- ■ Does the application involve electrical environments where non-conductive materials are preferred?
- ■ Are slip resistance and worker safety important in wet or corrosive areas?

## Long-Term Cost Evaluation

- ■ Are recurring repainting and repair costs increasing over time?
- ■ Are you evaluating materials based on lifecycle cost rather than initial price alone?

## Application Suitability

- ■ Are you considering gratings, tanks, ducting, ladders, or platforms in corrosive environments?
- ■ Does the project require long-term durability in outdoor or chemical-heavy conditions?

**Evaluation Insight:** If several of these conditions apply to your facility, FRP may provide a more durable and cost-effective long-term solution compared to conventional materials.

## Quick FRP vs Steel Comparison

Evaluation Factor	FRP	Steel
Corrosion Resistance	Excellent	Low
Maintenance Frequency	Low	High
Weight	Lightweight	Heavy
Electrical Conductivity	Non-conductive	Conductive
Lifespan in Harsh Environments	Long	Moderate

Choosing the right material for corrosive industrial environments requires balancing durability, maintenance, safety, and long-term operational performance. FRP systems are increasingly helping industries reduce corrosion-related challenges across critical infrastructure applications.