

# Glass Reinforced Plastic (GRP) Pipe

The GRP pipe utilizes thermosetting resin as a matrix, reinforced with glass fiber. Manufacturing processes include pure GRP pipe, GRP mortar pipe, and centrifugal casting GRP pipe, each offering distinct structural properties.



## Product Overview

### High-Performance GRP Piping Solutions

Glass Reinforced Plastic (GRP) pipes offer an advanced, corrosion-resistant solution for diverse industrial applications, including water supply, chemical processing, and agriculture. Engineered for durability, these pipes provide a service life exceeding 50 years while maintaining high strength and a lightweight profile. Their superior hydraulic efficiency and ease of installation make them a cost-effective alternative to traditional steel, ductile iron, and PE piping systems.

## Physical Properties

Relative Density	1.75 g/cm <sup>3</sup>
Weight Comparison	Approximately 1/4 the weight of steel
Expected Service Life	50 years

## Performance Metrics

### Flow Capacity Advantage

<b>15 %</b> Increased Flow Capacity	<b>20 %</b> Energy Savings
--	-------------------------------

Corrosion Resistance	Acids, Alkalis, Salts, Organic Solvents
----------------------	---

## Economic Performance

### Cost Advantage vs. Alternatives

Material	Cost Advantage
Ductile Iron Pipe	35% Cheaper
Steel Pipe	15-20% Lower
PE Pipe	2/3 of Price

Installation Expense	Estimated 5% of pipe price
----------------------	----------------------------

## Applications

### Suitable Industries

Water Supply • Drainage • Petroleum • Chemical Industry • Medicine • Agriculture • Irrigation • Food Industry