

FUTURE OF REINFORCEMENT **GFRP TECHNOLOGY**

STRONGER. SAFER. SMARTER CONSTRUCTION



ABOUT COMPANY

Surolia Enterprises Pvt. Ltd. was founded by a team of dedicated professionals committed to delivering high-quality products within defined timelines. Today, the company has established itself as a trusted provider of complete GFRP bar solutions, ensuring consistent performance and reliability.

We focus on delivering value-driven products and embracing advanced technologies to develop innovative and efficient GFRP applications. Our purpose is to connect innovation, technology, and expertise to build a more sustainable future.



VISION

To become a trusted leader in advanced composite solutions, driving innovation and sustainability in the construction and infrastructure sector.



MISSION

To deliver high-quality, durable, and efficient GFRP products through continuous innovation, superior manufacturing, and a commitment to customer satisfaction.



CORE VALUES

We are driven by quality, innovation, and a strong commitment to our customers, while upholding integrity and delivering sustainable, reliable solutions.

OUR PRODUCTS

GFRP (Glass Fiber Reinforced Polymer)

WHAT IS GFRP?

Glass Fiber Reinforced Polymer (GFRP) rebars are advanced composite reinforcement bars made from glass fibers and polymer resin. They serve as a modern alternative to steel, offering high strength, lightweight performance, and complete resistance to corrosion.

Designed for durability, GFRP rebars perform exceptionally well in harsh environments such as coastal, industrial, and water-related infrastructure, ensuring long-term reliability.

FEATURES:



Lightweight
Design



Rust & Corrosion
Free



High Strength
Performance



Economical
Solution



Minimal
Maintenance



Extended
Service Life



Easy to
Handle



Superior
Bonding



Flexible Length
Options



Electrically
Insulated



Non-Magnetic
Properties



No Signal
Interference



OUR PRODUCTS



GFRP MESH

GFRP mesh, or fiberglass mesh, consists of interwoven GFRP strands used to reinforce concrete slabs, walls, and other structural elements. It shares the same benefits as GFRP bars, such as corrosion resistance, lightweight, and high strength, enhancing the durability and longevity of construction projects.

BENEFITS:

- ▶ Corrosion-Free Reinforcement
- ▶ Crack Control Performance
- ▶ Ultra-Lightweight Grid
- ▶ Optimized Material Usage
- ▶ Extended Structural Life

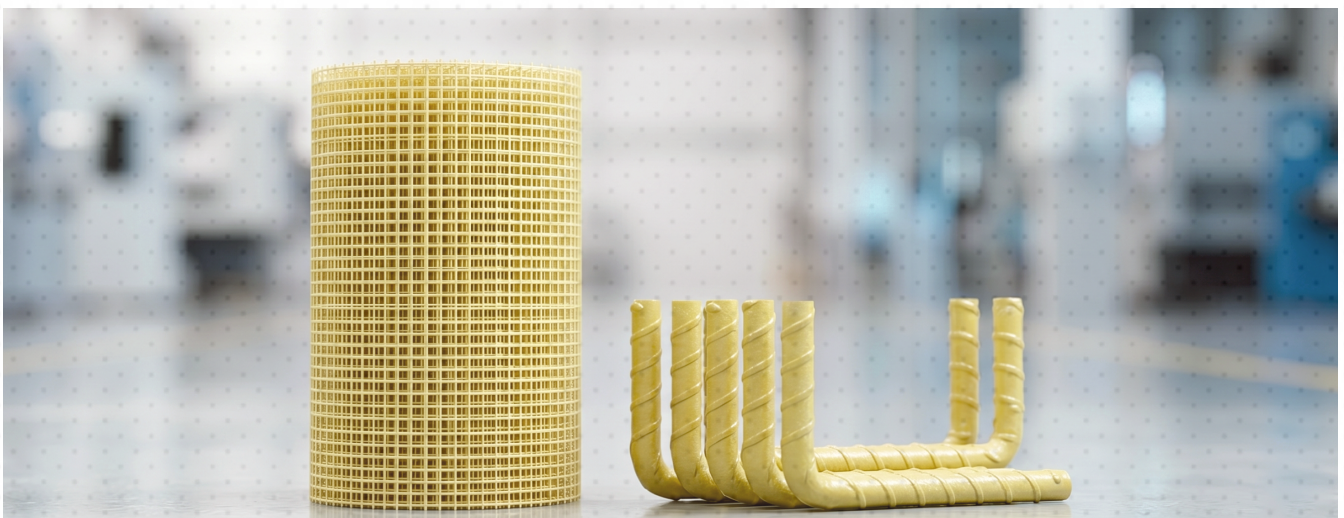


GFRP BENT ELEMENTS

GFRP bent elements are custom-made structural components produced from glass fibers and polymer resin. Designed with precise bends and angles, they meet diverse construction requirements while offering high strength, durability, and adaptability for specialized applications.

BENEFITS:

- ▶ Factory-Shaped Precision
- ▶ Zero Corrosion Risk
- ▶ High Tensile Strength
- ▶ Lightweight Advantage
- ▶ Non-Conductive & Non-Magnetic
- ▶ Long-Term Cost Efficiency



FRP Rods

For Use in Optical Fibre Cable



PRODUCT DETAILS:

Surolia Enterprises is pioneer in supplying FRP rods for optical fibre cables. Surolia Enterprises technology allows the production of composite rods based on glass reinforcement and in a range of diameters from 0.4 mm to 5.0 mm. FRP provides excellent tensile strength performance due to higher stiffness and anti-buckling properties, which increases the overall service life of optic fibre cables.

Surolia Enterprises FRP is available in various coatings including EAA (Ethylene Acrylic Acid) and HDPE, which allows easy handling and better grip to the cables.

BENEFITS:

- ▶ High Strength & Lightweight
- ▶ Excellent Flexibility
- ▶ Strong Material Bonding
- ▶ Uniform Shape & Diameter
- ▶ Better Flexibility than Steel
- ▶ Cost-Effective Solution



MANUFACTURING:

FRP Rods Are Explicitly Designed to Meet Optical Fiber Cable Performance Requirements. The Rods Are Manufactured Using Glass Fibre with Unique Resin Formulations. We Adopt Innovative Pultrusion Technology to Produce Cost-Effective and High-Quality Cable Reinforcement.

FRP Rods

TECHNICAL DATA

PHYSICAL PROPERTIES

Properties	Test Method	Unit	Value
Glass Content	DIN EN ISO1172	%	80
Diameter Tolerance	Micrometer	mm	± 0.05
Ovality	Micrometer	mm	± 0.05
Density	Water Immersion	gm/cc	2.05 to 2.15

HEAT STRESS TEST



FRP Rods

TECHNICAL DATA

MECHANICAL PROPERTIES			
Properties	Test Method	Unit	Value
Tensile Modulus	ASTM D3916	GPa	≥ 50
Tensile Strength at Break	ASTM D3916	GPa	≥ 1.50
Elongation at Break	ASTM D3916	%	≥ 2.0
Coefficient of Thermal Expansion	ASTM D696	cm/°C	5.9×10^{-5}
Water Absorption	ASTM D570	%	< 0.1
Minimum Bend Radius at 25°C	—	—	≤ 50 D
Resistance to Bending	ASTM D3916	N/sq mm	≥ 1500
Resistance to Compression	ASTM D53455	N/sq mm	≥ 300

TENSILE TESTING



FRP Rods

SIZE

We provide standard diameter size from 0.40 mm to 5.00 mm diameter. We also offer flat rod as per required dimensions. Please contact us. We would be glad to customize a solution if any types of coating or products outside this range are required.

PACKING

FRP rod is wound on plywood or plastic spools depending upon the customer's requirements. Customized packing solutions are also available on request.

Spools Packing



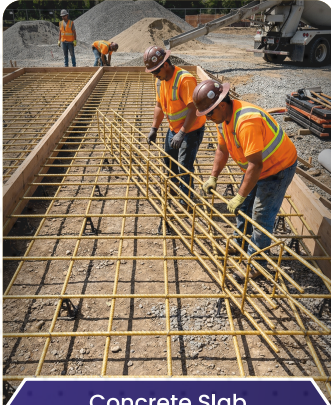
Standardized Stacking and Stuffing of Spools In



Customized Stacking Of Spools



APPLICATIONS OF GFRP BARS



Concrete Slab
Reinforcement



Bridge Deck Construction



Foundation Footing



Column & Beam
Reinforcement



Marine / Coastal Structure



Tunnel Lining



Water Tank/STP Structure



Farming Tunnel Structure

GFRP is transforming the construction industry by offering sustainable, cost-effective, and high-performance reinforcement solutions for the future.

GFRP vs TMT

GFRP

Corrosion-Free

No rust even in coastal & chemical environments

4x Tensile Strength

Higher strength-to-weight ratio than steel

Lightweight ($\approx 75\%$ lighter)

Easy transport, faster installation

Zero Maintenance

No coating or repairs required

Non-Conductive

Safe for electrical & sensitive zones

Long Service Life

Designed for 100+ years durability

Thermal & Chemical Resistant

Performs in extreme conditions

Cost Efficient (Lifecycle)

Lower long-term cost despite initial price

TMT

Prone to Corrosion

Rusts in moisture, chemicals, and coastal areas

Heavy Material

Higher transport and labor cost

Maintenance Required

Needs coating and frequent inspection

Conductive Material

Higher risk in electrical applications

Limited Lifespan

Strength reduces over time due to corrosion

Higher Lifecycle Cost

Maintenance increases long-term expense

Thermal Expansion Issues

Cracks concrete under temperature variation

CERTIFICATIONS



Certificate of Registration

This certificate has been awarded to

Surolia Enterprises Private Limited
G-48, RIICO Industrial Area, P.O. Mau, Sri Madhopur, Sikar, Rajasthan, 332715, India

In recognition of the organization's Environmental Management System which complies with

ISO 14001:2015

The scope of activities covered by this certificate is defined below

Manufacture, Supply and Export of Telecommunication Grade Fibre Reinforced Plastic Rod and Aramid Reinforced Plastic Rod and Optical Fibre Cable

Certificate Number 125406/A/0001/UK/En			
Date of Issue of Certification Cycle	Issue Number	Certificate Expiry Date	Certification Cycle
06 January 2026	2	05 January 2029	2
Revision Date	Revision Number	Original Certificate Issue Date	Scheme Number
04 December 2025	0	06 January 2023	n/a

For detailed explanation for the data fields above, refer to <http://www.urs-holdings.com/logos-and-regulations>

Issued by  Mukesh Singhal - On behalf of the Schemes Manager



If there is any doubt as to the authenticity of this certificate, please do not hesitate to contact the Head Office of the Group on info@urs-certification.com.
URS is a member of United Register of Systems (URS) Ltd, United House, 28 Park Hill, Birmingham, B5 9PL, UK. Company Registration No. 1228985



Certificate of Registration

This certificate has been awarded to

Surolia Enterprises Private Limited
G-48, RIICO Industrial Area, P.O. Mau, Sri Madhopur, Sikar, Rajasthan, 332715, India

In recognition of the organization's Occupational Health and Safety Management System which complies with

ISO 45001:2018

The scope of activities covered by this certificate is defined below

Manufacture, Supply and Export of Telecommunication Grade Fibre Reinforced Plastic Rod and Aramid Reinforced Plastic Rod and Optical Fibre Cable

Certificate Number 125406/C/0001/UK/En			
Date of Issue of Certification Cycle	Issue Number	Certificate Expiry Date	Certification Cycle
06 January 2026	2	05 January 2029	2
Revision Date	Revision Number	Original Certificate Issue Date	Scheme Number
03 December 2025	0	06 January 2023	n/a

For detailed explanation for the data fields above, refer to <http://www.urs-holdings.com/logos-and-regulations>

Issued by  Mukesh Singhal - On behalf of the Schemes Manager



If there is any doubt as to the authenticity of this certificate, please do not hesitate to contact the Head Office of the Group on info@urs-certification.com.
URS is a member of United Register of Systems (URS) Ltd, United House, 28 Park Hill, Birmingham, B5 9PL, UK. Company Registration No. 1228985



Certificate of Registration

This certificate has been awarded to

Surolia Enterprises Private Limited
G-48, RIICO Industrial Area, P.O. Mau, Sri Madhopur, Sikar, Rajasthan, 332715, India

In recognition of the organization's Quality Management System which complies with

ISO 9001:2015

The scope of activities covered by this certificate is defined below

Manufacture, Supply and Export of Telecommunication Grade Fibre Reinforced Plastic Rod and Aramid Reinforced Plastic Rod and Optical Fibre Cable

Certificate Number 125406/A/0001/UK/En			
Date of Issue of Certification Cycle	Issue Number	Certificate Expiry Date	Certification Cycle
06 January 2026	2	05 January 2029	2
Revision Date	Revision Number	Original Certificate Issue Date	Scheme Number
03 December 2025	0	06 January 2023	n/a

For detailed explanation for the data fields above, refer to <http://www.urs-holdings.com/logos-and-regulations>

Issued by  Mukesh Singhal - On behalf of the Schemes Manager



If there is any doubt as to the authenticity of this certificate, please do not hesitate to contact the Head Office of the Group on info@urs-certification.com.
URS is a member of United Register of Systems (URS) Ltd, United House, 28 Park Hill, Birmingham, B5 9PL, UK. Company Registration No. 1228985



PARTNER WITH US

LET'S BUILD STRONGER, SMARTER INFRASTRUCTURE TOGETHER



+91 93250 93620

+91 96025 03283



www.suroliaenterprises.com

