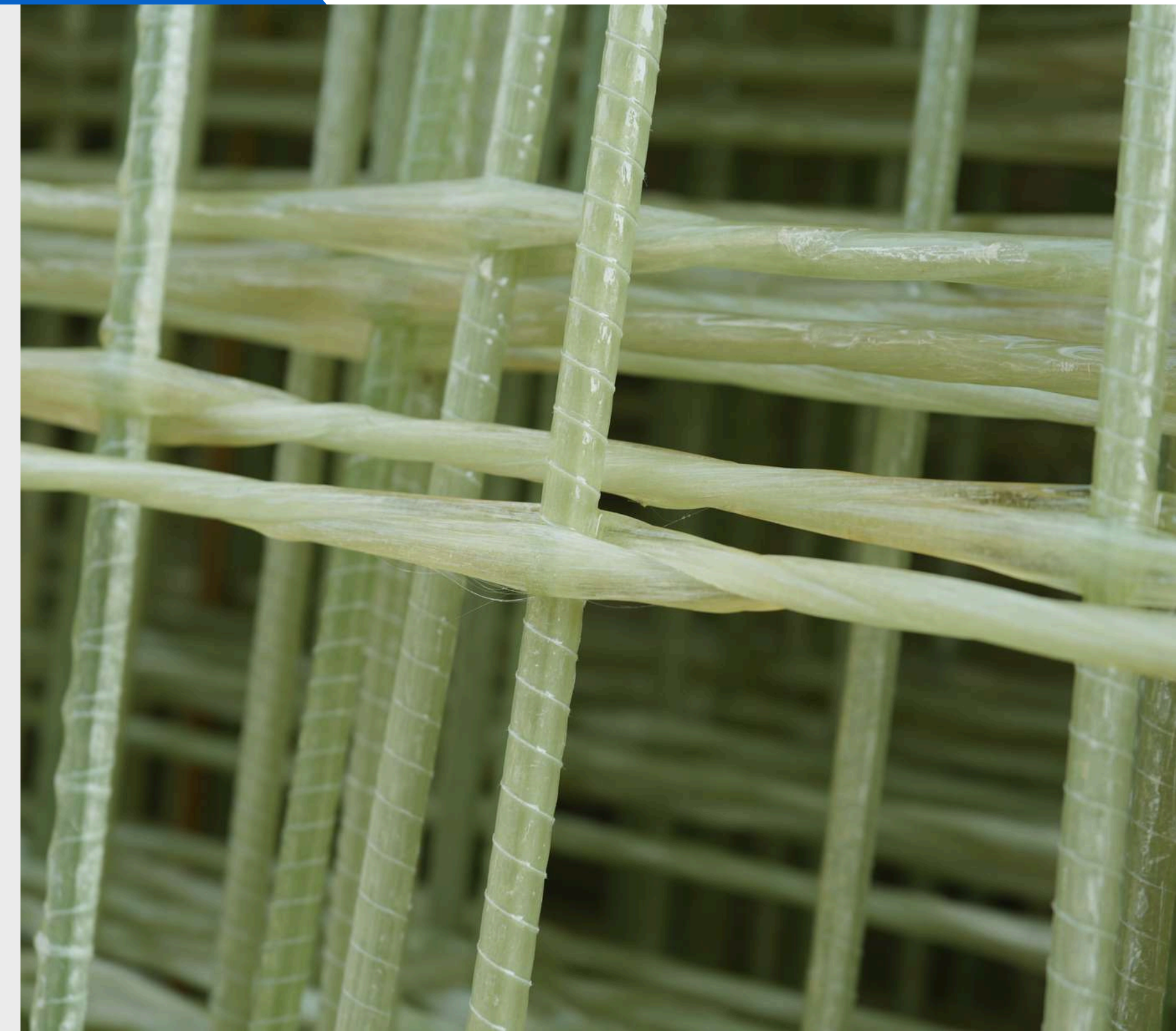


# Starbars™ GFRP Mesh

## PRODUCT DESCRIPTION

Starbars™ GFRP Mesh is a high-performance fibreglass mesh designed for reinforcing concrete slabs, walls, and floors where corrosion resistance, strength, and sustainability are critical. Manufactured from continuous glass fibres encased in a polymer matrix, it provides superior tensile performance and uniform load distribution, significantly reducing cracking and extending concrete life.

Engineered for durability in harsh environments, Starbars™ GFRP Mesh is ideal for marine, industrial, and civil applications. It complies with ASTM D7957/D7957M-22 and ACI SPEC 440.5-22, and is suitable for design and construction in accordance with ACI 440.11-22 and BS EN 1992-1-1:2023.



## FEATURES & BENEFITS

- **Corrosion-free:** Rust-proof and stable in marine and chemical environments.
- **Lightweight:** Up to four times lighter than steel, improving handling and install speed.
- **High strength-to-weight:** Delivers reliable reinforcement and crack control.
- **Non-conductive and non-magnetic:** Suitable for MRI facilities, airports, and sensitive sites.
- **Long service life:** Designed for 100+ years with minimal maintenance.
- **Lower carbon impact:** Up to 70% lower embodied carbon than steel reinforcement.
- **Safer handling:** No rust, sharp edges, or corrosion-related hazards on site.

## APPLICATIONS

- Ground slabs and suspended slabs
- Marine and coastal concrete structures
- Bridge decks and transport infrastructure
- Water and wastewater faBridge decks, approach slabs, and barrier walls
- Marine and coastal structures (seawalls, piers, wharfs, and docks)
- Exposed balconies and concrete slabs
- Water and wastewater treatment facilities
- Industrial and chemical plant flooring
- Car parks, driveways, and pavements
- Civil infrastructure requiring lightweight, corrosion-free reinforcement
- Electromagnetic-sensitive areas such as MRI rooms and radar platforms
- cilities
- Aggressive soil or chemically exposed environments
- Electromagnetic-sensitive facilities

## PACKAGING & AVAILABILITY

Product Code	Description
136365	Fibreglass Mesh SL72 2400mm x 5800mm
136392	Fibreglass Mesh SL82 2400mm x 5800mm
136911	Fibreglass Mesh SL92 2400mm x 5800mm
136362	Fibreglass Mesh SL81 2400mm x 5800mm

Need a different SL fabric, panel size, or wire pitch?  
Danterr can custom manufacture to meet project-specific requirements (lead times apply).

## TECHNICAL SPECIFICATIONS

### PHYSICAL PROPERTIES

Property	Specification
Material	High-performance Fibreglass Reinforced Polymer (FRP)
Nominal Wire	7-9 mm (dependent on SL reference)
Ultimate Tensile Strength	≥ 1000 MPa (wire dependent)
Modulus of Elasticity	~65,000 MPa
Density	~1,850 kg/m <sup>3</sup>
Thermal Expansion	Similar to concrete – minimises cracking
Electrical Conductivity	Non-conductive
Magnetic Properties	Non-magnetic
Corrosion Resistance	100% rust-proof; non-degradable in saltwater or chemicals
Expected Service Life	100+ years (environment dependent)
Design Compatibility	ACI 440.11-22; BS EN 1992-1-1:2023 (Annex R)

Detailed SL81 mesh specification and SL81 mesh weight information available on request.

### INSTALLATION & HANDLING

- **Storage:** Store panels off the ground, protected from direct sunlight and moisture.
- **Handling:** Lightweight panels can be safely carried and positioned manually.
- **Cutting:** Cut with diamond or carbide-tipped blades — *do not flame cut.*
- **Bending:** No field bending permitted. All bends or hooks must be factory-fabricated.
- **Fixing:** Use plastic or non-metallic spacers and ties to maintain non-conductivity.
- **Compatibility:** Fully compatible with standard concrete mixes and placement methods.

### SAFETY

- Non-hazardous under normal handling conditions
- Use standard PPE (gloves, eye protection, and dust mask) when cutting or trimming
- No corrosion or contamination risks during handling or installation
- Safe for manual lifting and transportation

# Starbars™ GFRP Mesh

## SUSTAINABILITY

- Reduces carbon emissions by up to 70% compared to steel mesh
- Delivers longer service life (100+ years), reducing replacement frequency
- Non-corrosive — prevents contamination and minimises maintenance waste
- Lightweight for lower transport energy use and emissions

## COMPLIANCE

- **ASTM D7957/D7957M-22** – Standard Specification for Solid Round GFRP Bars for Concrete Reinforcement
- **ACI SPEC 440.5-22** – Construction Specification for GFRP Reinforcing Bars
- **ACI CODE 440.11-22** – Building Code Requirements for Structural Concrete Reinforced with GFRP Bars
- **BS EN 1992-1-1:2023 (Annex R)** – Eurocode for Concrete Structures
- **SIRIM Product Certification License (PCL)** – Verified quality assurance