



OSWAL
CABLES

Since 1971

Carbon Core Conductor

Built for performance,
designed for trust

 www.oswalcables.com

Introduction

Carbon Core Conductor represents the next generation of high-performance overhead transmission conductors. Designed for superior strength, minimal sag, and maximum current-carrying capacity, Carbon Core Conductor deliver unmatched efficiency for modern power networks. With advanced carbon-fiber core technology, Carbon Core Conductor offers a reliable, long-life solution for utilities upgrading aging infrastructure or expanding grid capacity.

Typical Applications

- Transmission Line Upgrades (Reconductoring)
- New High-Capacity Transmission Corridors
- Urban Grid Expansion
- Industrial Power Networks
- Long-Span Crossings (Rivers, Valleys, Expressways)



Key Features & Advantages

1

Ultra-High Strength Carbon Fiber Core

- Lightweight yet significantly stronger than steel.
- Eliminates corrosion & improves mechanical reliability.
- Enables long spans & improved tower optimization.

2

High Current-Carrying Capacity

- Supports substantial ampacity increases compared to conventional ACSR/ACSR-TW.
- Ideal for reconductoring without tower modification.
- Reduces energy losses and improves grid efficiency.

3

Low Sag Performance

- Thermal expansion of the carbon core is ~1/10th that of steel.
- Maintains stable sag even under high temperatures.
- Enhances ground clearance and improves safety margins.

4

Exceptional Thermal Stability

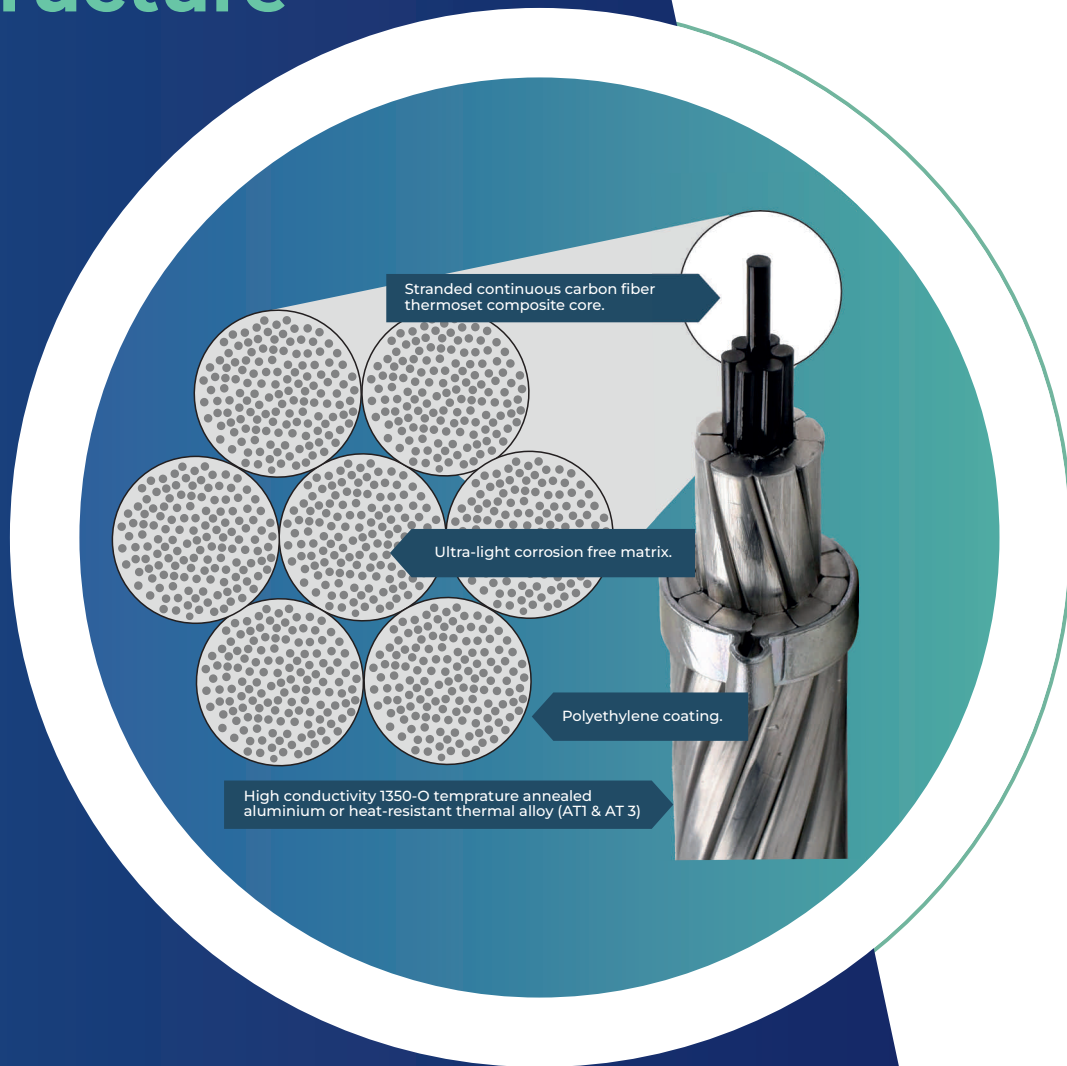
- Operates at continuous temperatures up to 180°C.
- Suitable for upgrading existing lines for increased demand.
- Resistant to thermal fatigue, ensuring long-term performance.

5

Corrosion & Fatigue Resistance

- Non-metallic core eliminates galvanic corrosion.
- Significantly enhances lifespan in coastal and industrial environments.
- Extends maintenance cycles and reduces lifecycle cost.

Conductor Structure



Performance Benefits

Higher Capacity Without New Towers

Carbon Core Conductor enables utilities to double or triple current transmission capacity over existing towers dramatically reducing project time and cost.

Reduced Line Losses

Improved conductivity delivers lower losses, reduced heat buildup, and better overall network efficiency.

Fast and Easy Installation

- Compatible with standard installation equipment.
- Easier stringing due to lightweight design.
- Reduced downtime for reconductoring projects.
- Installation procedures similar to Carbon Core Conductor, ensuring ease of installation even in hilly terrains.

Long Service Life

Engineered to provide decades of stable performance even in extreme climate conditions.

**Head Office**

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🌐 www.oswalcables.com

Manufacturing Locations**Unit 01**

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**Unit 02**

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