



# UNIFLEX

WIRES AND CABLES LTD

## COPPER ROD



*think local first.*

# About Uniflex Copper Rods

**Uniflex** Wires and Cables Limited (“UNIFLEX”) an ISO 9001:2018, ISO 14001:2015 and ISO 45001:2018 certified company, was established in 2022 as a privately-owned greenfield manufacturing project in Lusaka with a vision to manufacture and distribute the best-in-class **Energy Efficient Wires & Cables** along with other Copper Products in Zambia & its neighbouring countries and thereby contribute critically in expanding the national Industrial capacity.

Since its inception, **UNIFLEX** has continuously expanded its Production Capacity and Product Range and thereby has emerged as one of the most Reliable & Preferred brands of Copper Products in Zambia.

As a part of its continuous endeavor & vision to expand its Product Portfolio, **UNIFLEX** has commissioned its state-of-the-art manufacturing facility for Copper Rods. We have well-equipped PC Based quality testing laboratory, which ensures consistent quality during production.

**UNIFLEX** now offers range of **Copper Rods** which are suitable for application in **Power cables**, Communication cables, Transformers, Conductors, Alternators, magnetic wires & winding wires, Auto electricals, residential applications.. Our Continuous Cast Rods are manufactured strictly as per ASTM 49B and other applicable International Standards. Our Rods are manufactured from **99.99%** of pure **ETP** grade copper .

Our high-quality products offer a range of benefits, such as **reduced energy loss**, increased efficiency, enhanced reliability, **longer lifespan** and recyclability. These benefits make **Uniflex** an excellent choice that meets the energy needs of the society while **minimizing** environmental impact.







## WIRE ROD DIAMETERS, TECHNOLOGY AND COPPER QUALITY

DIAMETERS*	TECHNOLOGY	COPPER PURITY
8	Continuous cast and upward cast	99.99%

### Technical Parameters

SL No	DESCRIPTION	Unit	OXYGEN FREE ELECTROLYTIC COPPER ROD
1	Manufacturer		UNIFLEX WIRES AND CABLES LTD.
2	Applicable Standards		AS PER ASTM B49
3	Mechanical Property	mm	8.00±0.38
	a) Diameter	920 mm	1650 mm
	b) Elongation Break(min)	%	30
4	Electrical Property		
	Conductivity @20°C	%	100
5	Chemical composition		
	Copper (min)	%	99.99

**WE ARE DEVELOPING ADVANCED TECHNOLOGIES TO PROVIDE OUTSTANDING ENERGY SAVING PRODUCTS WITH MAXIMUM USEFUL LIFE TO ENABLE SUSTAINABLE SOLUTIONS. UNIFLEX CAN OFFER STANDARD MATERIALS, LOW- CARBON COPPER, RECYCLED COPPER AND CUSTOMIZED SOLUTIONS AIMING TO SUPPORT OUR CUSTOMERS IN MEETING THEIR SPECIFIC TARGETS.**

**OUR CONTINUOUS CAST COPPER WIRE COMPLIES WITH THE HIGHEST QUALITY REQUIREMENTS FOR MILLING, CONTINUOUS EXTRUSION AND DRAWING APPLICATIONS**

### TECHNICAL KNOW HOW

Uniflex rod is made in our own foundry, and complies with the highest quality requirements. The general manufacturing process is characterised by the process steps of sourcing, charging, melting, casting, rolling, cooling and coiling, followed by quality testing, packaging and transportation. The wire rod is offered in various windings on different pallets with or without wax, and it is also directly suitable for use in a conforming process.

In addition, a wide variety of qualities are offered, such as the enamelled quality, or drawing quality for different final wire diameters and we are proud of being a supplier of wire rod according to highest European standards using state-of-the- art tools. We use both Grade A cathodes in the charging process and recycled to produce pure ETP and ETP1 copper. The copper is smelted in the shaft furnace and casted into shapes via launders and an electrically heated and/or gas fired furnace system. In the subsequent rolling process, the wire is rolled down to dimensions of 8-22 mm before being cooled in the cooling section.

### QUALITY

Today we are a leading supplier in Africa, in the aspect of enameling, tinning, rolling, fine-wire drawing and conform purposes. We have all the test equipment needed to check fulfillment of the requirements of common wire rod standards like EN 1977, which is established and maintained. Uniflex is also an experienced manufacturer of drawn bare and tinned wire in pure copper.

### LOW-CARBON COPPER

**Half of the carbon emissions over its production processes, compared to the global average footprint for standard copper.** Low-carbon Copper is made possible through production that has undergone a substantial transformation due to electrification and automation of various stages of the process. The Low-carbon Copper has also been made possible by a very efficient ore concentration process and a world-class green energy mix. The result is copper wire rod that has a low impact on nature and the climate.

**The significantly lower CO<sub>2</sub> emissions of the Low-carbon Copper are verified through several validation processes.**

The reporting protocol that was used for verification is the Greenhouse Gas Protocol – Product Life Cycle Accounting and Reporting Standard. The product was also validated and reviewed against the general principles in ISO 14064-3 Standard.

### Environmental declarations available

Environmental declarations have been developed for Uniflex's products, including Low-carbon Copper. Our footprint is verified through a mass balance-based self-declaration for Low-carbon Copper Wire Rod and Low-carbon Copper Wire Profiles, as per the framework in ISO 14021. Furthermore, we have Environmental Product Declarations representing the carbon footprint of the total production of Copper and Copper Wire Rod, in accordance with the International EPD System. Uniflex aims to be a sustainability leader in its business, and therefore the carbon footprint is strategically important.

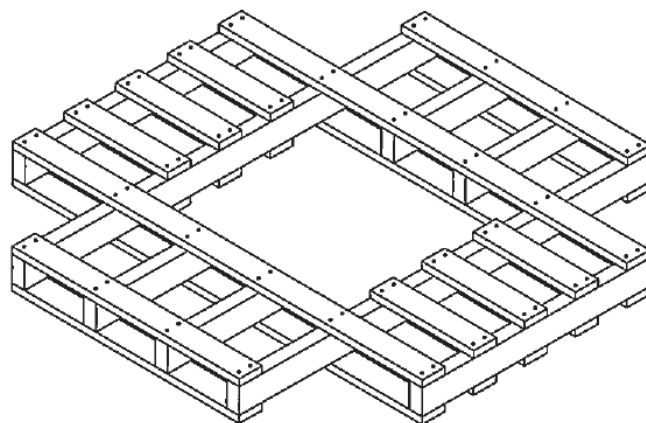
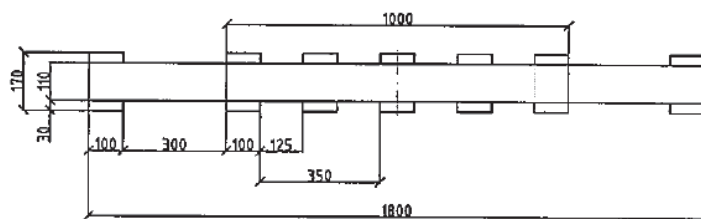






## OVERVIEW PALLET PACKAGE SPECIFICATIONS

MEASURING POINT	MM
LENGTH	1800
WIDTH	1800
HEIGHT	170



Material: Wood  
 Average tare weight: 45 kg  
 Carrying capacity: 3500 - 6000 kg  
 Mainly suitable for: All dimensions of Copper rod  
 Others: \*) HT-KD-DB marking on all pallets

**OUR SOLUTIONS ARE AN ESSENTIAL COMPONENT IN THE ELECTRICAL AND INFRASTRUCTURE INDUSTRIES. WITH RESPECT FOR THE ENVIRONMENT AND FUTURE GENERATIONS, WE ARE DEVELOPING ADVANCED TECHNOLOGIES TO PROVIDE YOU WITH OUTSTANDING ENERGY-SAVING PRODUCTS WITH MAXIMUM CIRCULARITY.**

### STANDARD COPPER

Our copper is responsibly sourced to prevent abuses of human rights, avoid contributing to conflicts, as well as safeguarding health and safety of miners in the supply chain. Our cathodes are LME Grade A standards.

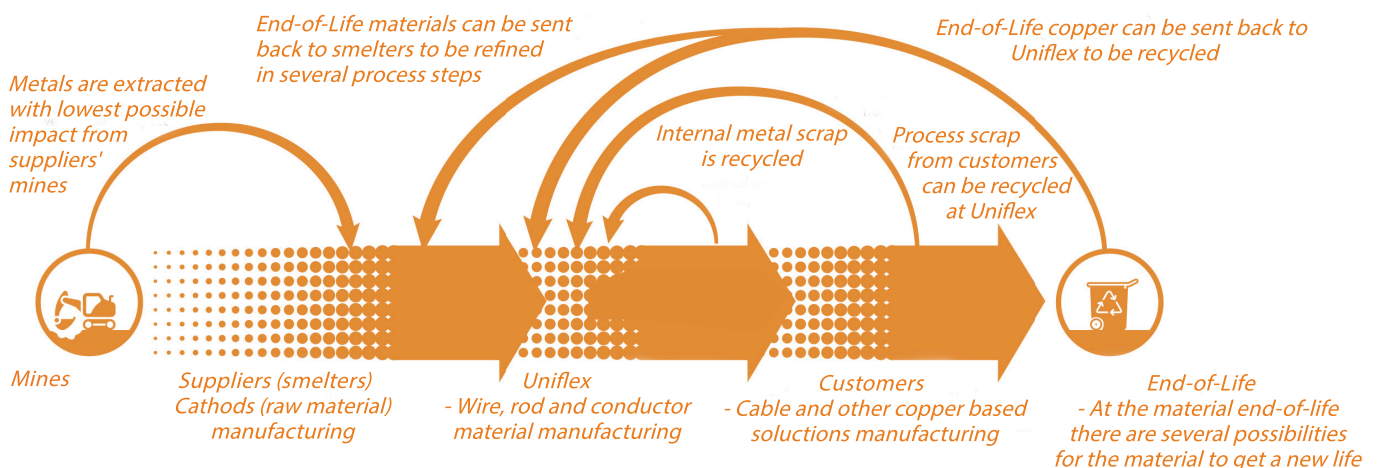
### LOW-CARBON COPPER

The Low-carbon Copper has less than half of the CO<sub>2</sub> emissions per kg copper compared to standard copper. The reduced CO<sub>2</sub> emissions of our Low-carbon Copper have been validated scientifically and will play an important role in the transition, to achieve the goal of net-zero CO<sub>2</sub> emission by 2050 set by the EU. The carbon emissions reduction by using Low-carbon Copper is based on using copper mines with electrified production, Uniflex's lean production methods, very efficient ore concentration process and a world-class green energy mix.

Uniflex sets the example by producing semi-finished and finished products that have a low impact on nature and climate.

### RECYCLED COPPER

One of the most significant benefits of copper is its recyclability. Copper is a highly sought-after material in the recycling industry because it can be recycled over and over again without losing its quality or purity. This means that copper can be reused in new products, reducing the need for mining and extraction of new copper ore. Recycling copper also reduces energy consumption and greenhouse gas emissions associated with copper production, making it an environmentally friendly choice. Uniflex's waste management and processing of materials are focused on going from linear flows to circular flows, supporting the core of a circular economy.





## UNIFLEX WIRES AND CABLES LIMITED

Manufacturers of Copper / Aluminium Cables and Enamelled Wires

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