

# KLW Green Solutions for Railway Business





Within last decade Interpipe has been making significant efforts towards minimizing the impact on the environment by crucial reducing CO2 emissions. The key milestone was the commissioning of new EAF steel-melting complex. This technology turnaround and efficiency improvement allowed us to use 100% steel billet of our own production.

Due to this as well as implementation of energy saving CAPEX program Interpipe's railway product division reduced CO2 emission by 47%. Up to now total figure is circa 1.3 ton of CO2 per ton of railway product which is marketed worldwide under KLW brand.

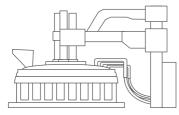
#### CO2 emissions change by 2024

<b>(0)</b>	Direct emissions (Scope 1)	Indirect upstream emissions (Scope 2)	Indirect upstream & downstream emissions (Scope 3)
CO₂ per ton of product	0.590 ton	0.121 ton	0.596 ton
CO₂ emission cut 2024 vs 2010	-46%	-40%	-67%



# Interpipe Steel is a Benchmark for Green Steel in Ukraine

Innovative EAF steel-melting complex fully meets EU environmental laws and covers 100% internal needs in low carbon steel billet for KLW railway products manufacturing.



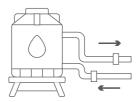
#### In-house Electric Arc Furnace

- Recycled scrap-based steelmaking
- Effective gas purifying system



## Two-thirds of electricity mix is low-carbon and green

43% - nuclear power energy28% - renewables and hydro power energy



## Reverse water supply system (95%)

- Less water intake
- No water discharge

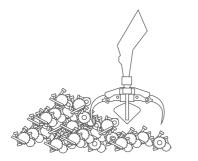
#### **Major Steel Grades for Railway Production**

STEEL GRADE	APPLICATION	STANDARD
ER7, ER8, ER9		EN 13262
R8T	Wheels production	BS 5892-3
Class B, Class C	Wheels production	AAR M-107/M-208
Steel 2, T		DSTU GOST 10791
B3N	Turse and untipe	UIC 810-1
Steel 2	Tyres production	DSTU GOST 398
EA1N		EN 13261
F	Axles production	AAR M-101
0C		DSTU GOST 4728

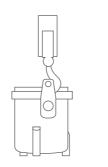
## KLW – the only wheel company with in-house steelmaking

Interpipe Steel is located in Dnipro, Ukraine, on the single production site with scrap collecting and procession facilities as well upstream units like hot rolling floor, finish-machining lines for wheels and axles and wheelset assembling site. Such unique one-site location of production assets gives our customers opportunity to reduce its carbon footprint due to minimizing of raw material and semi-finished products transportation.

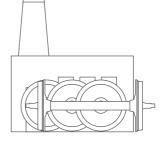
#### Single production site



Scrap collection and processing site



Low-carbon steelmaking



• Green wheel, axle, and wheelset production

Benefits of unique single production site:

- No transportation of scrap & steel billet within production units
- No extra CO2 emissions due to minimal internal logistics
- Reducing our customers' carbon footprint (Scope 3)

## CO<sub>2</sub> emission reduction goals for 2030

Interpipe's target is to reduce total  $CO_2$  emissions further by 2030 compared to 2010 by means of new CAPEX, energy efficiency projects and carbon-neutral electricity mix. In railway product division  $CO_2$  emissions change is going to be lowered by 11% vs 2024 due to installation of the new heat-treatment unit.

#### CO2 emissions change by 2030

(O)	Direct	Indirect upstream	Indirect upstream &
	emissions	emissions	downstream emissions
	(Scope 1)	(Scope 2)	(Scope 3)
CO <sub>2</sub> emission cut 2030 vs 2024	-11%	-53%	-3%









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