

## Tire Pyrolysis Oil (TPO)

Tire Pyrolysis Oil (TPO) from Gravita is a high-value hydrocarbon product specifically designed for use as a refinery feedstock and for downstream fuel blending applications. It is produced through an advanced pyrolysis process at temperatures between 350°C and 500°C in an oxygen-free environment. The feedstock consists of a controlled mix of truck and bus radial (TBR), passenger car tires (PCR), and off-the-road (OTR) tires, ensuring uniformity and process reliability.

Gravita's TPO has a high calorific value and is ideally suited as a substitute for furnace oil and heavy fuel oil, making it an efficient and economical alternative. Its stable properties ensure smooth handling and seamless integration into existing industrial systems, including furnaces, boilers, cement kilns, and metal processing units. Gravita's TPO delivers consistent quality, stable composition, and reliable supply — key requirements for refinery and petrochemical operations.

Additionally, the presence of biogenic content from natural rubber supports sustainability objectives and regulatory compliance. By incorporating Gravita's Tire Pyrolysis Oil, customers can diversify feedstock sources and reduce dependence on conventional crude for refining and furnace oil for industrial use, contributing to the circular economy by converting end-of-life tires into valuable TPO.

The product complies with REACH Registration Number 01-2120842802-56-0003, with EC Number 948-949-8, ensuring global acceptance.



## Physical & Chemical Properties

Property	Test Method	Typical Value	Unit
Appearance	Visual	Dark brown to black	—
Odour	Sensory	Aromatic petroleum	—
Biogenic Content	ASTM D6866	60-70%	wt%
Total Acid Number (TAN)	ASTM D664	≤ 5	mg KOH/g
Total Metals	ASTM D5185	≤ 50	ppmw
Sulfur Content	ASTM D4294	< 1	wt%
Water Content	ASTM D95	≤ 0.3	wt%
Density @ 15°C	ASTM D4052	0.90 – 0.93	g/cm <sup>3</sup>
Flash Point	ASTM D93	45 – 65	°C
Pour Point	ASTM D97	< -10	°C
Kinematic Viscosity @ 122°F/50°C	ASTM D445	1 – 4	cSt
Carbon Residue	ASTM D4530	≤ 2.5	wt%
Nitrogen	ASTM D 5762	≤ 0.5	wt%

## Metal Content (Trace Elements)

Element	Iron (Fe)	Nickel (Ni)	Vanadium (V)
Test Method	ASTM D5185	ASTM D5185	ASTM D5185
Typical Range	≤ 10 PPM	≤ 0.50 PPM	≤ 1 PPM

## Applications

- Refinery feedstock for further upgrading
- Blending in Heating Oils and Diesel Alternatives
- Feedstock for chemical recovery processes
- Power Generation Units
- Industrial boiler fuel
- Furnace oil substitute
- Marine fuel blending component

## Packaging

- Bulk Tank Trucks (20–24 MT per tanker)
- ISO Tank Containers (21–24 MT)
- Customized Packaging: As per customer requirement

## Transport Classification

- UN Number: UN 3295
- Transport Class: 3(F1) Environmentally Hazardous Liquid
- Packing Group: III

## Global Rubber Operations - Gravita Group

