



PRODUCT CREDENTIAL 2026

Tire Pyrolysis Carbon Black

Recovered carbon black (rCB) from end-of-life tires — a sustainable, cost-competitive filler for rubber, plastics, coatings and inks.

• Grade PYROCARBON PC-380 • CAS 1333-86-4 • HS 2803.00.41

WHO WE ARE

DNAF Trading Company

PT Drei Naftali Enkelkinder has marketed and supplied industrial products since 2018 and formed its trading arm to meet direct demand from clients and the market. We trade goods and services for state-owned enterprises, corporations and export buyers.

- **Importer**
Sourcing industrial goods into Indonesia
- **Exporter**
Indonesian materials to overseas buyers
- **Sourcing agent**
Specification-driven procurement
- **Distributor**
Stock and delivery within Indonesia

5 product lines

Pyrolysis carbon · Valves · Chemicals · Raw chemical · Packaging

NIB 8120019142174



Tire pyrolysis reactor hall — partner production facility, Indonesia

THE PRODUCT

What is Pyrolysis Carbon Black?

Pyrolysis Carbon Black — also called Recovered Carbon Black (rCB) — is produced by heating end-of-life tires and rubber waste in an oxygen-free reactor. The process breaks the rubber down and recovers the carbon black originally compounded into the tire, along with oil, steel and gas.

The result is a fine black powder that works as a cost-effective, environmentally responsible substitute for virgin (furnace) carbon black in rubber compounding, plastics, coatings, inks and construction materials, while keeping tires out of landfill.

CAS **1333-86-4** (carbon component)

Synonyms: **rCB** · **pCB**



PyroCarbon PC-380 — fine black powder, as supplied

WHY IT MAKES SENSE

Why choose Pyrolysis Carbon Black?

1

Sustainable alternative to virgin carbon black

Produced by recycling end-of-life tires, not from fossil feedstock. Every tonne used displaces furnace black and keeps tires out of landfill.

2

Cost-competitive

An attractive balance of performance and price. Manufacturers reduce raw-material spend and stay competitive without compromising product quality.

3

Laboratory-verified composition

Proximate analysis and sulfur tested by Sucofindo. Rubber-grade tests (iodine adsorption, oil absorption, toluene transmittance) are being added, and customer trials are recommended before full substitution.

4

Future-ready for ESG expectations

Governments, customers and global brands increasingly require recycled content. Adopting rCB strengthens ESG commitments and adds sustainability value to the end product.



HOW IT IS MADE

Production process



1 • Waste tire feedstock

End-of-life truck and passenger tires, sorted and de-rimmed



2 • Cutting and sizing

Tires are cut to reactor-sized pieces for uniform heating



3 • Pyrolysis at ~450 °C

Oxygen-free thermal decomposition in a sealed rotary reactor



45%

Pyrolysis oil

Industrial fuel oil / refinery feedstock



30%

Carbon black (rCB)

Milled and packed as PyroCarbon PC-380



15%

Steel wire

Recovered bead and belt steel, sold as scrap



Gas

Syngas

Non-condensable gas, recycled as reactor fuel

WHAT IT DOES FOR YOUR PLANT

Product benefits



Reduce manufacturing costs

A cost-efficient alternative to conventional carbon black. Lower raw-material expense per batch improves margins.



Easy integration into existing lines

Compatible with a wide range of processes and formulations. Adopt a recycled raw material with minimal changes to equipment, recipes or workflow.



Quality you can verify

Each lot can be sampled and tested by Sucofindo or SGS before loading, so incoming inspection can be matched to the shipment.

TESTED BY AN ACCREDITED LABORATORY

Technical specifications

79.45%

Fixed carbon

14.89%

Ash content

3.95%

Volatile matter

0.98%

Moisture

1.34%

Total sulfur

PARAMETER	SUCOFINDO RESULT	STATUS	METHOD
Product form	Fine black powder	Observed	Visual
Fixed carbon	79.45 %	Tested	SNI 06-3730-1995
Ash content	14.89 %	Tested	SNI 06-3730-1995
Volatile matter	3.95 %	Tested	SNI 06-3730-1995
Moisture content	0.98 %	Tested	SNI 06-3730-1995
Total sulfur	1.34 %	Tested	XRF
Bulk density	—	Not tested	—
pH	—	Pending	ASTM D1512
Iodine / OAN / toluene	—	Pending	ASTM D1510 / D2414 / D8653
Particle size	—	Customisable	Milling to order

WHAT THE NUMBERS MEAN

Fixed carbon 79.45 %

The carbon fraction is the part that reinforces and colours the finished rubber or plastic.

Ash 14.89 %

Inorganic residue carried over from the original tire compound (silica, zinc oxide, calcium). Typical of rCB, and the main difference from virgin carbon black.

Volatile matter 3.95 %

A low residual hydrocarbon level, which supports cleaner processing and less odour.

Moisture 0.98 %

Low moisture improves storage stability and feeding efficiency on the line.

Results from Sucofindo (ID Survey) Report of Analysis No. E39567/CNBPAT, 2 September 2026 — lot sampled 20 August 2026. A certificate of analysis is available for every shipment on request.



Report No. E39567/CNBPAT
Date: September 02, 2026



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REPORT OF ANALYSIS

The following sample (s) was submitted and identified by the client as :

CLIENT : PT. DREI NAFTALI ENKELKINDER
THE MANHATTAN SQUARE BUILDING MID TOWER LT 12 UNIT C-
F JL TB SIMATUPANG KAV 1-S CILANDAK TIMUR, PASAR
MINGGU, KOTA ADM. JAKARTA SELATAN.

TYPE OF SAMPLE : CARBON BLACK PYROLYSIS

DATE RECEIVED : August 20, 2026

DATE OF ANALYSIS : August 20, 2026 to September 01, 2026

TESTED FOR : Moisture Content, Ash Content, Volatile Matter, Fixed Carbon, and
Total Sulfur

DESCRIPTION OF SAMPLE : Form : Powder
Volume/Weight : ± 2 Kg
Packing : Unsealed Plastic Bag
1 (One) sample

SAMPLE IDENTIFICATION : -

YOUR REFERENCE : -

Parameters	Units	Results	Methods
Moisture Content	%	0.98	SNI 06-3730-1995
Ash Content	%	14.89	SNI 06-3730-1995
Volatile Matter	%	3.95	SNI 06-3730-1995
Fixed Carbon	%	79.45	SNI 06-3730-1995
Total Sulfur	%	1.34	XRF

This test result (s) related to the sample (s) submitted only and the report / certificate cannot be reproduced in any way, excepted in full context and with the prior approval in writing from Sucofindo Laboratory.
This certificate/report is issued under our General Terms and Conditions, copy of which is available upon request or may be accessed at www.sucofindo.co.id



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Sub Dept. Oil, Gas & Chemical Laboratory



■ SUCOFINDO ■
Gesti Fatmawati



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SCI-2023A

QUALITY ASSURANCE

Independently tested, fully documented

- ✓ **Accredited laboratory analysis.** Proximate analysis (moisture, ash, volatile matter, fixed carbon) and total sulfur by PT Sucofindo – ID Survey, Cibitung laboratory.
- ✓ **Certificate of analysis on request.** A COA can be issued for every shipment so incoming inspection can be matched to the lot.
- ✓ **GHS safety data sheet.** 16–section SDS (rev. 1.3, October 2026) aligned to Permenperin 23/2013 and international GHS – ready for import permits and plant EHS review.
- ✓ **Pre–shipment sampling on request.** Retained samples and third–party inspection (Sucofindo / SGS) can be arranged before loading.

 Download Safety Data Sheet (PDF)

 View Sucofindo report

WHERE IT IS USED

Applications



Rubber & tire

- Non-tread tire compounds such as inner liner
- Conveyor belts and hoses
- Rubber mats, seals and moulded goods
- Partial replacement of semi-reinforcing grades, subject to customer trial

PRIMARY USE · HS 2803.00.41



Plastics

- Black masterbatch for PE, PP and PVC
- Pipes, films and injection-moulded parts
- Black colouring

FILLER & PIGMENT



Coatings & inks

- Industrial and marine paints
- Printing inks and toners
- Bitumen and roofing coatings

PIGMENT



Construction

- Asphalt and bitumen modification
- Concrete pigmentation and additives
- Rubberised paving and flooring

ADDITIVE



SUPPLY

Packaging & shipping

Each bag is fitted with an inner PE liner and stretch-wrapped to keep out moisture, dust and contamination from the plant to the customer's warehouse. Bags are palletised for forklift handling and loaded into standard containers for domestic and export shipments.

25 kg

Woven PP bag with PE liner

500 kg

FIBC jumbo bag with PE liner

1,200 kg

FIBC jumbo bag with PE liner

- **Protective wrapping** — high-strength stretch film on every jumbo bag
- **Container shipping** — 20' / 40' loads, optimised for weight and stability
- **Palletised loading** — fast, safe forklift handling at both ends
- **Storage guidance** — keep dry, on pallets, away from heat and oxidisers

Export & compliance

2803.00.41

HS CODE · BTKI / AHTN

Carbon black, of a kind used for rubber processing

Declared as carbon black under heading 2803, not as waste or residue. Indonesian export duty: nil. Certificate of origin available for preferential tariff claims under ASEAN and bilateral FTAs.

UN N.4

IMDG · IATA · ADR / RID

Expected to ship as non-dangerous goods

Carbon black ships as general cargo once it passes the UN Test N.4 self-heating test. The test result for this product will be confirmed before the first shipment. Not a marine pollutant.

GHS

16-SECTION SDS · REV. 1.3

Documented for import and plant safety

SDS aligned to Permenperin 23/M-IND/PER/4/2013 and Permenaker 5/2018, referencing EU CLP status. Indonesian version available; translations for destination-country submissions (e.g. KOSHA) can be prepared on request.

CAS **1333-86-4** (carbon component)

Exporter **PT Drei Naftali Enkelkinder**

NIB **8120019142174**

NPWP **452810963017000**

WORKING WITH DNMF

Why choose us?



Consistent product quality

Quality control from raw-material selection to final packaging, with pre-shipment sampling and laboratory testing available for every lot.



Competitive pricing

Efficient production and recycled feedstock let us offer cost-effective supply without compromising quality — helping customers improve profitability.



Trusted long-term partner

We build partnerships on quality, reliability and mutual growth — consistent product, dependable service and documentation that stands up to audit.



Thank you

Petrus Dwiatmoko

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