

CERTIFICATE OF ANALYSIS

Description : Wood Briquettes Charcoal
Type of Sample : Pillow
Manufacturer / Shipper : PT. Mitra Wood Sejahtera
Dsn. Tanggungan RT. 5 RW. 2, Ds. Wringinanom,
Kec. Wringinanom, Kab. Gresik, Jawa Timur, Indonesia
Sample Weight : 3.00 kgs
Date of Sampling : 17 July 2025
Location of Sampling : PT. Mitra Wood Sejahtera
Date of Analysis : 18 July 2025 up to 23 July 2025

Sampling

Samples were taken and prepared in accordance with SNI 19-0428-1998.

Analysis

Analysis were performed at PT Carsurin Tbk. Gresik Laboratory (accreditation by KAN / National Accreditation Committee – Indonesia for SNI ISO/IEC 17025:2017 Cert No. LP-2065-IDN) in accordance with ASTM Standard. The results of our analysis are as follows:

Parameter	Unit	Results		Method
		Wet Basis	Dry Basis	
Moisture	%	6.38	-	ASTM D1762-84 (2021) section 7.2
Ash Content	%	11.05	11.80	ASTM D1762-84 (2021) section 7.4
Volatile Matter	%	20.06	21.43	ASTM D1762-84 (2021) section 7.3
Fixed Carbon	%	62.51	66.77	MWI.01.63.LC (by calculation)
Gross Calorific Value	KCal/Kg	5,629	6,013	ASTM D 5865 (2019)

This certificate refers solely to the analysis in accordance with the details described herein and does not certify any other matter, and is issued without prejudice.

Gresik, 25 July 2025
PT. CARSURIN Tbk.



Abdillah Faiz Naim
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Head of Laboratory

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The analysis results are based on representative samples which are sampled by trained staff based on applied standard (Ref SNI 19-0428-1998 Petunjuk Pengambilan Contoh Padatan) during the inspection (or audit). This particular cargo as stated in this certificate has been performed cooling and weathering process as declared by the shipper in the weathering certificate. The certificate is valid for 90 days from the date of testing in particular shipment with the production batch/lot number as mentioned in this certificate



SUBJECT

Evaluation of "Wood Briquettes Charcoal" Sample for Self-Heating Substance Test

MANUFACTURER / SHIPPER

PT. Mitra Wood Sejahtera
Dsn. Tanggungan RT. 5 RW. 2, Ds. Wringinanom,
Kec. Wringinanom, Kab. Gresik, Jawa Timur, Indonesia

DATE OF SAMPLING

17 July 2025

LOCATION OF SAMPLING

PT. Mitra Wood Sejahtera

DESCRIPTION & TYPE OF SAMPLE

Wood Briquettes Charcoal, Pillow

DATE OF TESTING

21 July 2025 up to 23 July 2025

The analysis results are based on representative samples which are sampled by trained staff based on applied standard (Ref SNI 19-0428-1998 Petunjuk Pengambilan Contoh Padatan) during the inspection (or audit). This particular cargo as stated in this certificate has been performed cooling and weathering process as declared by the shipper in the weathering certificate. The certificate is valid for 90 days from the date of testing in particular shipment with the production batch/lot number as mentioned in this certificate .



METHOD OF TEST

The self heating substances test was performed according to United Nations "Recommendations on the Transport Dangerous Good, Manual of Test and Criteria" (33.4.3.3.1) as per revised UN test manual 7th edition 2019. Self heating substances, using method of UN 33.4.6 "Test N.4: Test method self-heating substances".

A consignment of carbon if it passes the tests for self-heating substances as reflected in the United Nations Manual of Tests and Criteria (see 33.4.3.3.1), and is accompanied by a certificate from a laboratory accredited by the competent authority, stating that the product to be loaded has been correctly sampled by trained staff from that laboratory and that the sample was correctly tested and has passed the test.

The sample was placed into a 100 mm cubic mesh sample container made of stainless steel. The container was then hung at the centre of the oven. The oven temperature was slowly raised to 140° C and kept constant for 24 hours. The temperature at the centre of the sample and temperature between the container and oven were recorded continuously.

RESULT

Table 1: Analysis result for "Wood Briquettes Charcoal" sample

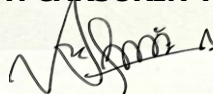
Sample	Oven Temperature (°C)	Cube Size (mm)	Maximum Temperature Reached (°C)	Result
Wood Briquettes Charcoal	140	100	215.3	Positive
Wood Briquettes Charcoal	140	25	142.9	Negative
Wood Briquettes Charcoal	120	100	124.8	Negative

The above result showed that the "Wood Briquettes Charcoal" sample shall not be classified in self heating substances and the substance is to be contained in packages of not more than 3 m3.

Remark

The temperature profiles were enclosed in next pages for your references. T1 represented temperature in the center of the sample. T2 represented temperature between the container and the oven wall.

Gresik, 25 July 2025
PT. CARSURIN Tbk.


Abdillah Faiz Naim
Head of Laboratory

PT. CARSURIN Tbk.


Amran Lesmana
Head of Charcoal Division

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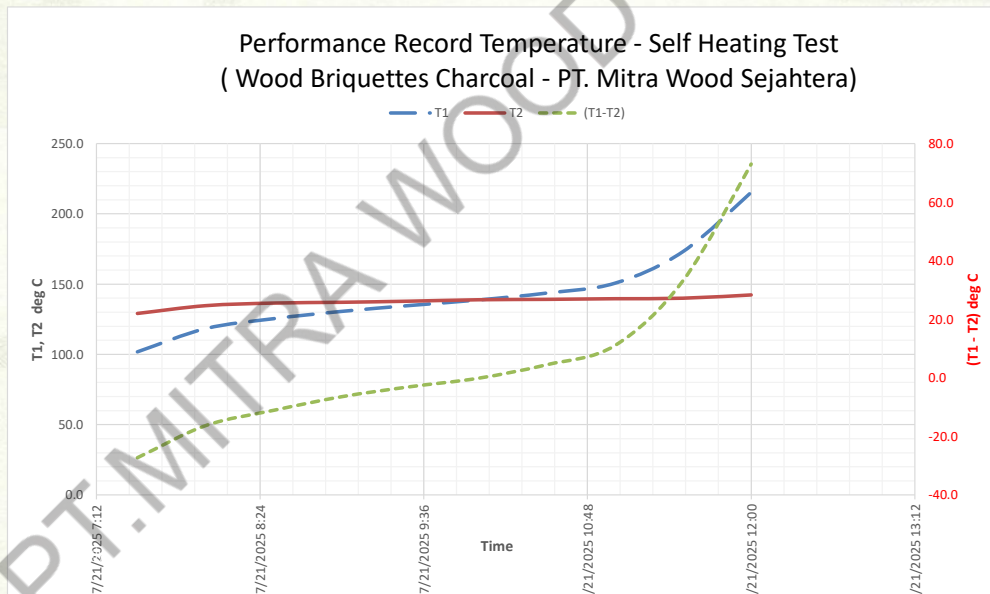
Temperature Profile "Wood Briquettes Charcoal" at 140⁰ C (100mm cube)

Start Time : 21-Jul-25 7:30:00
 Stop Time : 21-Jul-25 12:00:00
 Elapsed Time : 4:30:00
 Interval : 0:30:00
 Total Readings : 10
 Thermocouple Type : K
 Scaling : (None)

Temperature	Max Time Stamp	Max	Average	Min	Min Time Stamp
T1	7/21/2025 12:00	215.3	143.2	101.8	7/21/2025 7:30
T2	7/21/2025 12:00	142.3	137.5	129.1	7/21/2025 7:30
T1-T2	7/21/2025 12:00	73.0	5.7	-27.3	7/21/2025 7:30

Remark:

T1 represented temperature in the centre of the sample. T2 represented temperature between the container and the oven wall.



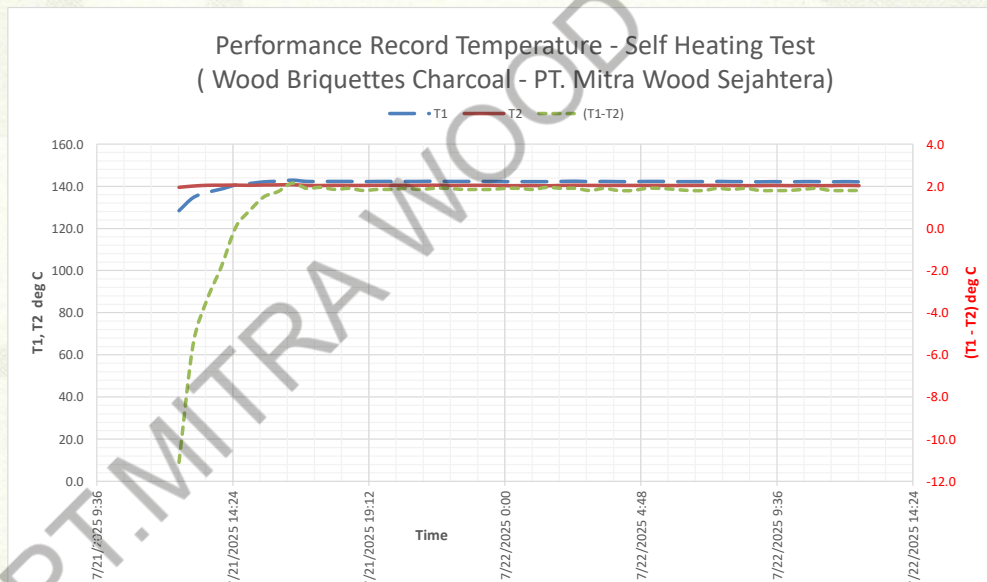
24 Hours Temperature Profile "Wood Briquettes Charcoal" at 140⁰ C (25mm cube)

Start Time : 21-Jul-25 12:30:00
 Stop Time : 22-Jul-25 12:30:00
 Elapsed Time : 24:00:00
 Interval : 0:30:00
 Total Readings : 49
 Thermocouple Type : K
 Scaling : (None)

Temperature	Max Time Stamp	Max	Average	Min	Min Time Stamp
T1	7/21/2025 16:30	142.9	141.6	128.4	7/21/2025 12:30
T2	7/21/2025 16:30	140.8	140.4	139.5	7/21/2025 12:30
T1-T2	7/21/2025 16:30	2.2	1.2	-11.1	7/21/2025 12:30

Remark:

T1 represented temperature in the centre of the sample. T2 represented temperature between the container and the oven wall.



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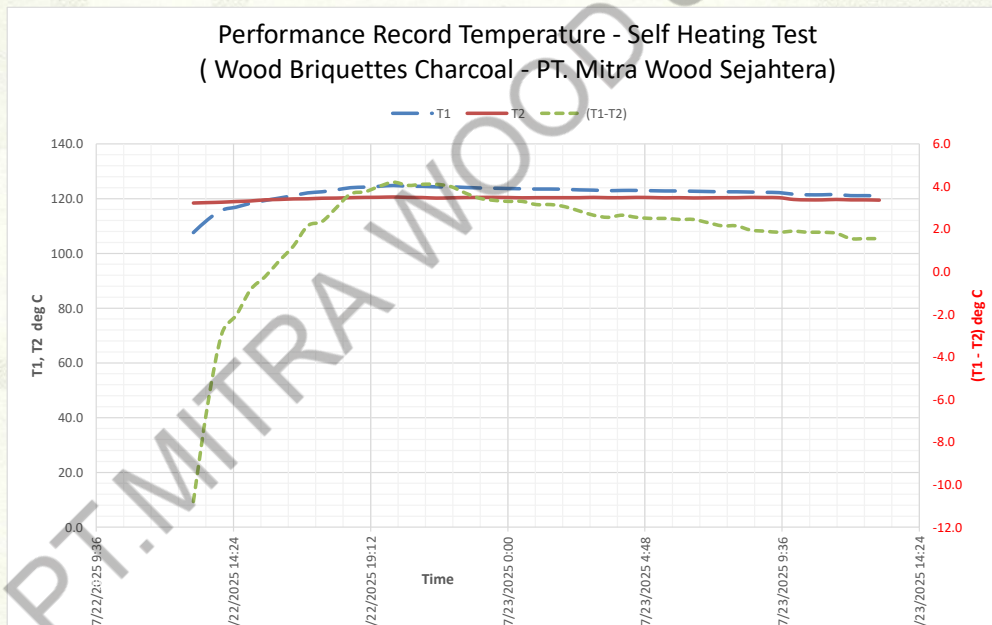
24 Hours Temperature Profile "Wood Briquettes Charcoal" at 120⁰ C (100mm cube)

Start Time : 22-Jul-25 13:00:00
 Stop Time : 23-Jul-25 13:00:00
 Elapsed Time : 24:00:00
 Interval : 0:30:00
 Total Readings : 49
 Thermocouple Type : K
 Scaling : (None)

Temperature	Max Time Stamp	Max	Average	Min	Min Time Stamp
T1	7/22/2025 20:00	124.8	121.9	107.6	7/22/2025 13:00
T2	7/22/2025 20:00	120.6	120.0	118.4	7/22/2025 13:00
T1-T2	7/22/2025 20:00	4.2	1.9	-10.8	7/22/2025 13:00

Remark:

T1 represented temperature in the centre of the sample. T2 represented temperature between the container and the oven wall.



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