

SUBJECT

Evaluation of "Coconut Shell Charcoal (Granulated)" Sample for Self-Heating Substance Test

CLIENT

PT. Nucla Mitra Indoindah
Lindungan IV
Kalasuge, Tabukan Utara
Kab. Kepulauan Sangihe, Sulawesi Utara

DATE OF RECEIVED SAMPLE

March 04th, 2023

DESCRIPTION OF SAMPLE

Coconut Shell Charcoal (Granulated)

DATE OF TESTING

March 06th Up To March 07th, 2023

The below findings are based on sample/s only, which is/are submitted or supplied by client. This report is valid within 90 days from the date of analysis.

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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) 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), 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 received was placed into was the 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 "Coconut Shell Charcoal (Granulated)" Sample

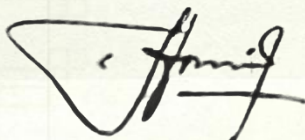
Sample	Oven Temperature (°C)	Cube Size (mm)	Maximum Temperature Reached (°C)	Result
Coconut Shell Charcoal (Granulated)	140	100	141.0	Negative

The above result showed that the "Coconut Shell Charcoal (Granulated)" sample shall not be classified in self heating substances.

Remark

The temperature profiles were enclosed in pages 3 for your references. T1 represented temperature in the center of the sample. T2 represented temperature between the container and the oven wall.

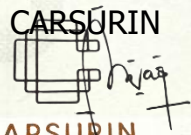
Jakarta, March 07th, 2023
PT. CARSURIN



Dede Jemmi Supriadi
Head of Laboratory

For verification of authenticity certificate or report, please e-mail to charcoal@carsurin.com

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Amran Lesmana

Head of Technical Charcoal

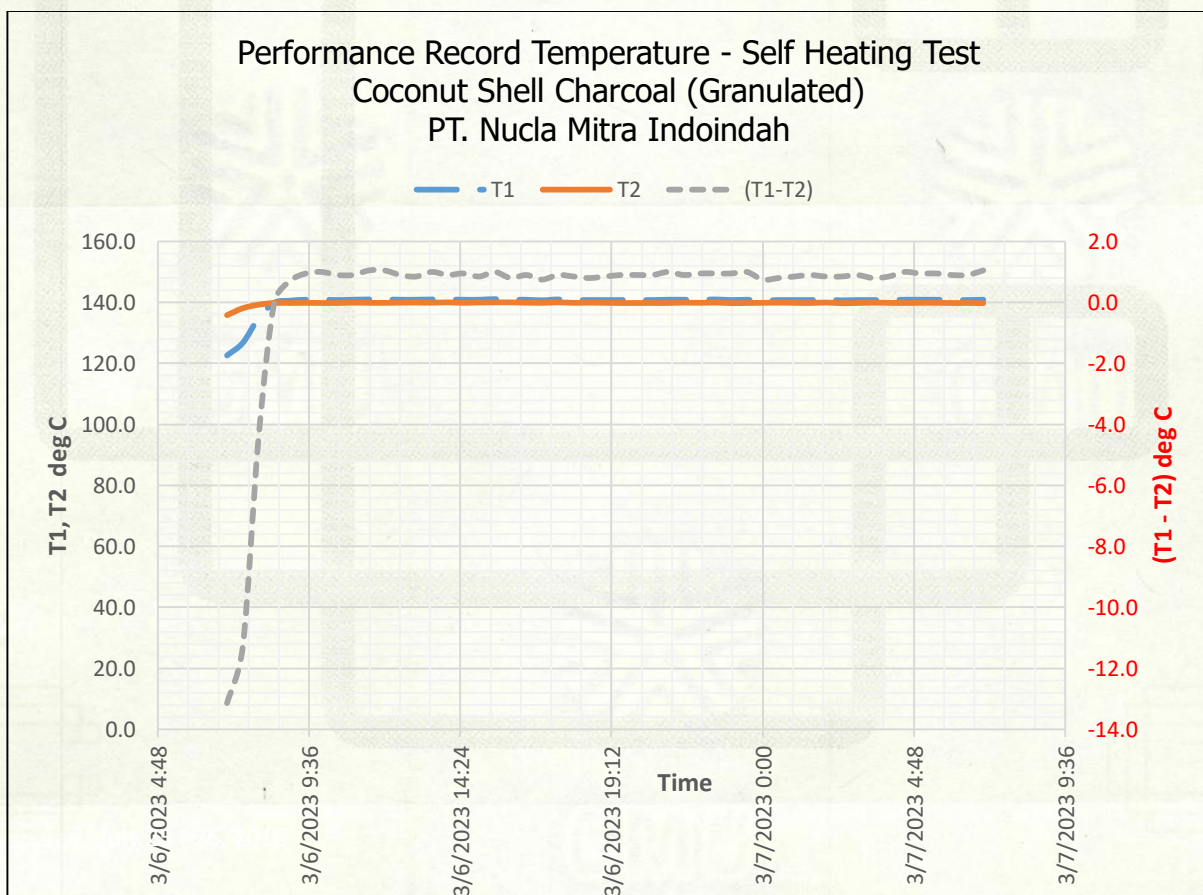


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24 Hours Temperature Profile "Coconut Shell Charcoal (Granulated)" at 140^o C (100mm cube)

Start Time : March 06th, 2023 07:00:00
 Stop Time : March 07th, 2023 07:00:00
 Elapsed Time : 24:00:00
 Interval : 0:30:00
 Total readings : 49
 Thermocouple Type : K
 Scaling : (none)

	Max Time Stamp	Max	Average	Min	Min Time Stamp
T1	06/03/2023 14:00	141.0	140.0	122.7	06/03/2023 07:00
T2	06/03/2023 10:30	140.0	139.7	135.9	06/03/2023 07:00
T1-T2	06/03/2023 14:00	1.1	0.2	-13.2	06/03/2023 07:00



Remark:

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



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2. The sample/s mentioned in this report is/are submitted by client.
3. Nothing in this report shall be interpreted to mean that PT. CARSURIN has verified or ascertained endorsement or marks from any other authority or bodies that may be found on that sample.
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5. Unless otherwise stated, the tests were carried out in PT. CARSURIN Jl. Gaharu 1 Blok F2 No. 10 J, Multi Guna Niaga, Delta Silikon 3 Lippo Cikarang Bekasi



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REPORT OF ANALYSIS

Description : Coconut Shell Charcoal (Granulated)
Manufactured / Shipper : PT. Nucla Mitra Indoindah
Lindongan IV
Kalasuge, Tabukan Utara
Kab. Kepulauan Sangihe, Sulawesi Utara

Sample Weight : 3.00 Kgs
Date of Received Sample : March 04th, 2023
Date of Analysis : March 06th, 2023

Analysis

Analysis were performed at PT Carsurin Cikarang Laboratory (accreditation by KAN / National Accreditation Committee – Indonesia for ISO 17025:2017 Cert No. LP-415-IDN) in accordance with ASTM Standard. The results of our analysis are as follows:

Parameter	Unit	Results		Method
		Wet Basic	Dry Basic	
Moisture	Pct	3.74	-	ASTM D1762-84 (REAPPROVED 2021)
Ash Content	Pct	1.41	1.46	ASTM D1762-84 (REAPPROVED 2021)
Volatile Matter	Pct	9.46	9.83	ASTM D1762-84 (REAPPROVED 2021)
Fixed Carbon	Pct	85.39	88.71	By Calculation

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.

Jakarta, March 07th, 2023

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Dede Jemmi Supriadi

Head of Laboratory

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