# TEST REPORT
## No. TESR 25/2024/1810

This report is a correct record of the measurements and observations made. The report is intended for the private information of those for whom the work was done and not be used in whole or in part in any other way except with the written approval of the director of Standards. Misuse may lead to the penalties provided under the Standards Act, 1968. The Bureau accepts no responsibility for any loss or damage which may be sustained as a result of the use or reliance upon this report.

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|---|---|---|---|
| **Customer Name** | Donald Excell | **Reference**: | CMQ-C/MISC 15773 |
| **Address**: | Donolva District; Maryland P.O; Hanover; Jamaica | **Date Received**: | 2024 February 21 |
| **Manufacturer**: | N/A | **Date and Location of Test**: | 2024 February 23 – 2024 March 1<br>BSJ - 6 Winchester Road, Kingston 10 |
| **Product**: | Charcoal – two (2) sample | **Serial No. / ID No.**: | N/A |
| **Test Method**: | **ASTM METHOD D4607**: Standard Test Method for Determination of Iodine Number of Activated Carbon | **Specification(s)**: | N/A |
| **Ambient Conditions**: | Temperature 24.6ºC – 25.5 ºC<br>Relative Humidity 55.5% – 61.2% | **Test Uncertainty**: | N/A |
| **Standard(s) Used**: | N/A | **Traceability**: | N/A |

**Test Methods and Additions, Deviations, or Exclusions from Method:**

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|---|---|
| Additions, deviations, or exclusions from method | Volume of 5% HCl used was 20ml<br>Volume of Iodine used was 50 ml.<br>Volume of filtrate used was 20ml. |

**PLEASE SEE PAGE TWO (2) FOR RESULTS**

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|---|---|---|---|
| **Circulation:**<br>Donald Excell<br>Chemistry Branch<br><br>File | **Remarks:** | **Prepared by:**<br>**Signature:** M Rhoden / T. Thomas<br>**Name:** Mickel Rhoden / Toni Thomas<br>**Post:** Analyst/ Senior Analyst<br>**Date:** 2024 March 7 | **Issued/Approved by:**<br>**Signature:** D. Bremmer<br>**Name:** Dwyte Bremmer<br>**Post:** Director<br>**Date:** 25-MAR-2024 |



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| Sample Identification | Iodine Number (mg/g) |
|---|---|
| Charcoal<br>Sample A | 666.83 |

| Sample Identification | Iodine Number (mg/g) |
|---|---|
| Charcoal<br>Sample B | 670.99 |

Based on literatures the iodine number for activated carbon is between (500 – 1200) mg/g.[1,2]

## References

(1) Mopoung, S.; Moonsri, P.; Palas, W.; Khumpai, S. Characterization and Properties of Activated Carbon Prepared from Tamarind Seeds by KOH Activation for Fe(III) Adsorption from Aqueous Solution. *The Scientific World Journal* **2015**, *2015*, 1–9. https://doi.org/10.1155/2015/415961.

(2) Saka, C. BET, TG–DTG, FT-IR, SEM, Iodine Number Analysis and Preparation of Activated Carbon from Acorn Shell by Chemical Activation with ZnCl2. *Journal of Analytical and Applied Pyrolysis* **2012**, *95*, 21–24. https://doi.org/10.1016/j.jaap.2011.12.020.

The values reported are representative of the samples that were tested.

**END OF REPORT**

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