شركة أسس الشرق الأوسط لتجارة المواد الإنشائية ذ.م.م
MIDDLE EAST FOUNDATIONS Co.
FOR CONSTRUCTION MATERIALS TRADING W.L.L.
الرقم الوطني 200214967

# NATURAL BASALT FLY ASH TECHNICAL DATA SHEET

**OSOS-3M Natural Basalt Fly Ash (NBFA) is a volcanic-rock powder supplied as a concrete additive. It is offered for the applications below. Suitability and performance depend on the project mix and specifications.**

Data check: the sheet's 69.67% oxide sum is below its shown 70% Class N minimum; its density 1.03 g/cm3 differs from the lab report's 2.94 g/cm3. Confirm before publication.

## USES

**Concrete Production**

- Enhances concrete performance.
- Reduces water requirements.
- Minimizes the risk of segregation during mixing.
- Reduces heat of hydration.
- Massive concrete. **Sustainable Practices** • Supports environmentally friendly construction methods. **Infrastructure Projects**
- Applied in various construction applications for bridges, roads, and other infrastructure projects. **Building Construction**
- Utilized in the construction of buildings to enhance the durability and strength of concrete structures.

**Mortar Production** • Incorporated into mortar formulations to improve overall performance.

**Precast Concrete Manufacturing**

- Used in the production of precast concrete elements for improved quality and durability.

**Soil Stabilization**

- Employed in soil stabilization projects for enhanced ground support.

**Agricultural Applications:** • Used in certain agricultural practices for soil amendment. **Fire-resistant Materials** • Contributes to the development of fire-resistant building materials.

## REPORTED TEST VALUES

Compared with ASTM C618

| Type of Test | Result | Acceptance Criteria | | |
|---|---|---|---|---|
| | | CLASS N | CLASS F | CLASS C |
| Sum(SiO2, Al2O3, Fe2O3)(%) | 69.67 % | 70 Min | 50 Min | 50 Min |
| SO3 (%) | 0.18 % | 4.0 Max | 5.0 Max | 5.0 Max |
| CaO (%) | 12.92% | | 18.0 Max | >18.0 % |
| Moisture Content (%) | 1.03% | 3.0 Max | 3.0 Max | 3.0 Max |
| Loss of Ignition (%) | 5.89% | 10.0 Max | 6.0 Max | 6.0 Max |
| Density, g/cm3 | 1.03 | - | - | - |

*Our product has been tested JSMO & RSS

## PACKING

- Paper Bags (25 Kg)
- Jambo Bags (1.25-1.5MT)
- Bulk

## SHELF LIFE

12 months from date of production, store in dry place away from sunlight and moisture

## APPEARANCE



Gray Odorless Powder

KSA +966 503 810008
BHR +973 333 55 483
JOR +962 79 6179632
e-mail: sales@osos-3m.com

## PHYSICAL PROPERTY TABLES



| | | | |
|---|---|---|---|
| ACES Client | OSOS-3M | Report No. | TMR23030070 Rev.1 |
| Owner | OSOS-3M | Date Reported | 07-12-23 |
| PMC | N/A | Sample No. | TMS23015771 |
| Project Client | N/A | Request No. | TMQ23010531 |
| Consultant | N/A | Client Reference | Signed Quotation PT23004265 Rev.0 |
| Contractor | N/A | Project No. | - |
| Project Name | Private | | |

| | | | |
|---|---|---|---|
| Sample Description | $AYT_{VPA}$ | Sample Located By | N/A |
| Sample Source / Supplier | N.P. | Sampled By | ACES AMMAN |
| Sample Location | N.P. | Sampling Date | 14-11-23 |
| Delivery Note No. | N.P. | Sample No. | N.P. |
| Sample Reference | Amman-23-134 | Sampling Method | N.P. |
| HS Code | 68109900 | Sample Size | 1 Sample (01 Bag) |

| | | | |
|---|---|---|---|
| Sample Preparation | - | Sample Brt. In By | ACES AMMAN |
| Test Method | As Below | Date Received | 21-11-23 |
| Test Method Var. | Nil | Date Tested | 22-11-23 |
| Remarks | Nil | Tested By | Michael |
| Testing Location | Main Lab St 41 Industrial Area | Testing Location Coordinate (QND) | E: 221671, N: 379307 |

| Test Carried Out | Test Method | Results |
|---|---|---|
| Percent retained on 45µm (No.325), (%) | ASTM C311/C311M-22 (Cl.20) | 29.32 |
| Percent retained on 150µm (No.100), (%) | ASTM C136/C136M-19 | 0.80 |
| Moisture Content, % | ASTM C311/C311M-22 (Cl.11&12) | 1.03 |
| Density, g/ $cm^3$ | ASTM C188-17 (Reapproved 2023) | 2.94 |

Remarks :- The test results related only to the specimen(s) tested
:This test report shall not be reproduced except in full, without written approval from ACES
:This report supersedes our report with ref. TMR23030070 dated 23-11-2023 which shall be considered as void
:Revised report to add client details

## CHEMICAL ANALYSIS TABLES



| | | | |
|---|---|---|---|
| ACES Client | OSOS-3M | Report No. | TER23014490 Rev.1 |
| Owner | OSOS-3M | Date Reported | 07-12-23 |
| PMC | N.P. | Request No. | TEQ23004408 |
| Project Client | N.P. | Sample No. | TES23012110 |
| Consultant | N.P. | Client Reference | Signed Quotation PT23004265 Rev.0 |
| Contractor | N.P. | Project No. | - |
| Project Name | Private | | |
| Sample Description | $AYT_{VPA}$ | Sample Located By | N.P. |
| Sample Location | N.P. | Sampled By | ACES AMMAN |
| Sample Location Coordinates (QND) | N.P. | Sampling Date | 14-11-23 |
| Grade | N.P. | Mill Certificate No. | N.P. |
| Sample Size | 1 Bag | Date of Certificate | N.P. |
| WTR No. | N.P. | Sampling Method | N.P. |
| Heat No. | N.P. | Batch Mass | N.P. |
| Source / Supplier | N.P. | Marking | N.P. |
| Sample Brt. In By | DHL | Date Received | 21-11-23 |
| Test Method | See below table | Date Tested | 22-11-23 |
| Testing Location | Main Lab, Street No.41, Industrial Area | Tested By | Saleem |
| Remarks | - | Testing Location Coordinates (QND) | E:221671, N:379307 |

*N.P. Indicates information not provided by the Client.*

Result of Analysis

| Parameters | Analytical Method | Result (%) |
|---|---|---|
| Loss on Ignition (LOI) | ASTM C311/C311M-22 | 5.89 |
| Sodium Oxide ($Na_2O$) | EDX-8000 | 3.55 |
| Magnesium Oxide (MgO) | EDX-8000 | 9.15 |
| Aluminum Oxide ($Al_2O_3$) | EDX-8000 | 13.27 |
| Silicon Oxide ($SiO_2$) | EDX-8000 | 43.91 |
| Sulfur Trioxide ($SO_3$) | EDX-8000 | 0.18 |
| Potassium Oxide($K_2O$) | EDX-8000 | 1.00 |
| Calcium Oxide (CaO) | EDX-8000 | 12.92 |
| Iron Oxide ($Fe_2O_3$) | EDX-8000 | 12.49 |
| Sum ($SiO_2$+$Al_2O_3$+$Fe_2O_3$) | Calculation | 69.67 |
| Sodium Oxide Equivalent ($Na_2O$+0.658$K_2O$) | Calculation | 4.21 |

Remarks:-The test results relate only to the specimen(s) tested.
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