



# Test Options

Mars Mineral maintains a laboratory and pilot scale testing facility to determine the process conditions needed to convert your powder into pellets. Please use the table below to determine which test option will best suit your needs.

Description	Research Study	Pilot Scale Development
Test Results	Success based upon generation of customer-defined pellets, as determined by analysis	Scale up data obtained and/or quantity pelletization
Required Quantity of Sample	5-10 Gallons for disc/drum pelletization; 15-25 Gallons for pin mixer pelletization	55 Gallons minimum
Binders	Water and 2 binder additives; Additional binders will increase fee	Predetermined binder
Equipment	DP-14 Disc/Drum or 8D32L Pin Mixer	P-30 Disc, D-20 Drum or 12D54L Pin Mixer
Sample Yield	Jar quantities of green and/or dried pellets	2 Gallons or more of pelletized product
Special Conditions	None	Milling, pre-treatment, mixing, special feeding, drying, screening, or post-treatment at extra charge
Price	Up to \$2,000.00 per test	\$2,500.00 per day (one day minimum charge)

## MARS MINERAL

128 Myoma Road  
Mars, PA 16046

Phone: 724-538-3000  
Fax: 724-538-5078  
info@marsmineral.com  
www.marsmineral.com

Division of Woodward, Inc.



# Terms & Conditions

## Description of Laboratory Fees

The quoted laboratory testing rates are for the use of our facility, equipment, laboratory technicians and supporting personnel. The Laboratory fees are charged either as a standard price (for Research Study), or at a daily rate (for Pilot Scale Development). The Pilot Scale Test is based upon a daily charge, plus additions for optional processing equipment or materials. The daily charge is a minimum fee. The number of days quoted for your project includes estimated time for set up of the pelletizing system, for clean up upon the test completion, special pre- or post-treatment of materials or pellets (milling, mixing, drying etc.) and for preparation of the test report.

## Daily, Overtime and Weekend Rates

The normal daily rate is for an eight (8) hour day, 7:30 AM to 3:30 PM, Monday through Friday. Time exceeding the normal workday will be invoiced at overtime rates. No overtime will be performed without written authorization by the customer.

## Extraneous Supplies

Any special supplies needed for a test, and to be supplied by Mars Mineral, must be authorized by the customer in writing and will be invoiced at our cost plus 15%. All unused supplies will be returned to the customer upon completion of the test.

## Forms Required for Testing

Before any testing begins, Mars Mineral must have in possession:

- A completed Agglomeration Questionnaire
- Applicable material Safety Data Sheet(s) (SDS)
- For new, US customers: A completed Credit Application

## Acceptance of Materials

Written authorization from Mars Mineral must be obtained by the customer prior to shipment or Mars Mineral will not accept the shipment. Mars Mineral will not consider authorizing material shipment without prior receipt of a Material Safety Data sheet.

Failure of the customer to properly notify Mars Mineral in writing about the properties of the materials will indemnify and hold Mars Mineral harmless from and against any and all claims, suits or liability whatsoever arising from

or connected with any such injury, death or damage. Material sent to Mars Mineral should be sent in 5-gallon buckets for small samples. Larger samples will be accepted in drums (not to exceed 500 pounds per drum) or in bulk bags with bottom spout (not to exceed 2,000 pounds). Packaging other than this needs to be cleared with Mars Mineral prior to shipment. Send materials to: Mars Mineral; 128 Myoma Road; Mars, PA 16046 USA, Attention Test Lab.

## Return of Materials

Mars Mineral policy requires that all materials shipped to us for testing will be returned to the customer. There are no exceptions. The materials will include unused raw materials, product, off spec material and clean up. Arrangements for the return of the materials must be made prior to the test. All charges for the return of the material will be to the customers account and will be invoiced with the testing charges. In the event that the testing is delayed or partially completed due to reasons beyond the control of Mars Mineral, the material will be held for a maximum of 30 days from the delay date. After 30 days, the material will be returned to the customer by freight collect. If the customer refuses delivery of the material, it will be disposed of in accordance with the Safety Data Sheet and the customer will be billed for all related costs.

## Test Scheduling/Completion

All tests will be scheduled according to the arrival date of materials, required forms and laboratory fee down payment. This schedule is tentative and is subject to change. Mars Mineral will notify the customer of the scheduled test date and will make every effort to hold the date selected.

## Terms of Payment

The following payment terms will apply to all testing:

- 50% required with the purchase order and completed forms for testing.
- 50% required upon completion of the test and prior to the submittal of the test report and shipping of samples.
- International customers must pay 100% of test fee and cost of return material shipment prior to receiving authorization to ship raw material for testing.



# Agglomeration Questionnaire

This questionnaire is to be completed and returned to Mars Mineral prior to testing of your materials. Please, fill in as much as possible to help us understand how we may help you achieve your pelletization objectives.

## Contact Information

Company \_\_\_\_\_

Contact \_\_\_\_\_

Title \_\_\_\_\_ Email \_\_\_\_\_

Phone \_\_\_\_\_

How did you first learn about Mars Mineral? \_\_\_\_\_

Do you require a Nondisclosure Agreement (NDA), before you may discuss your project with Mars Mineral? \_\_\_\_\_

## Raw Material Information

Common name of the material \_\_\_\_\_

Is the material a mixture? \_\_\_\_\_ If the material is a mixture, what are the specific components, and what are their percentages? \_\_\_\_\_

\_\_\_\_\_

Please include Safety Data Sheet(s) (SDS)? \_\_\_\_\_

Is the material hazardous? \_\_\_\_\_ If so, please, explain \_\_\_\_\_

\_\_\_\_\_

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# Agglomeration Questionnaire

Aerated Bulk Density (lb/ft<sup>3</sup> or kg/m<sup>3</sup>) \_\_\_\_\_

Moisture Content % \_\_\_\_\_

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Powder Particle Size (US Sieve/Microns/Millimeters):    10 mesh \_\_\_\_\_    45 mesh \_\_\_\_\_

80 mesh \_\_\_\_\_    120 mesh \_\_\_\_\_    200 mesh \_\_\_\_\_    325 mesh \_\_\_\_\_    Pan \_\_\_\_\_

Please, give an example of particle consistency, such as flour, sand, fibers, lumps, etc.

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## Test Objectives and Finished Pellet Information

Type of test required, from Test Options, above \_\_\_\_\_

Amount of powder to be processed \_\_\_\_\_

Finished pellet properties designed:

Size Range \_\_\_\_\_ Strength \_\_\_\_\_ Shape \_\_\_\_\_

## Agreement with Terms and Conditions

By signing this form, I agree to the above Terms and Conditions.

Signature \_\_\_\_\_

Date \_\_\_\_\_