



Document Title:

Crushed stone #67: ¾" (19 mm) to #4 (4.75 mm)

Document Type:

Material Specification

Document No.:

4350.223

Originating Department:

Distribution Standards & Materials

Issue Date:

February 2, 2023

Effective Date:

Feb 3, 2023

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Feb 2, 2023

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Feb 3, 2023

Document History

Date	Revision Comments
February 2, 2023	Initial Release, added page cover, and modify this specification.

Warehouse Catalog	Item Version	Date
038-83208	1	February 2, 2023



Equipment Specification
Document No.: 4350.223
Item No.: 038-83208
Asset Suite: 83208
Originating Department: Distribution Engineering



Crushed stone #67:
 $\frac{3}{4}$ " (19 mm) to #4 (4.75 mm)

1. Introduction

This is a general specification that covering the crushed stone #67 to be use on the distribution system in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement will provide information on site specific conditions, quantity, and other requirements. This document includes the general characteristics of the material.

2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this material to PREPA/LUMA on previous orders, will not have to furnish samples at bid opening. The material will be received at the LUMA's general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

3. Quantity/Literature

Descriptive and technical literature must be supplied by vendor at time of bidding. This literature may include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. Failure to submit documents on time will cause bidder disqualification. For products described in this specification as requiring qualification, awards will be made only for such products that, prior to the time for opening of bids, had been tested and/or approved by LUMA. Evidence of PREPA's and/or LUMA Energy's approval of the equipment or material shall be supplied by vendor if requested by LUMA Energy.

4. Markings

- 4.1. Containers shall be marked outside with LUMA Energy's purchase order, item number, name and size, net and gross weight, manufacturer's name, and lot number.
- 4.2. Packaging labels and tags shall be waterproof.

5. Equal or Approved Equal to

Quikrete $\frac{3}{4}$ " Gravel – Manufacturer # 1152-45

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6. Packaging

All material and equipment shall be packaged and marked in such a way as to facilitate handling and protection from damage and that the receiving warehouse can readily identify it and send it, in one complete unit, to a field location without opening crates or boxes to sort items and/or parts.

7. Number Per Package (Logistics)

- 7.1. As requested by LUMA Energy.
- 7.2. Standard package: 50 lbs. (22.68 kg) bags or by cubic meter from a quarry.

8. Acceptance Criteria

- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations:
 - a. ASTM C33 - Standard Specification for Concrete Aggregates
 - b. AASHTO M 6, Class A - Standard Specification for Fine Aggregate for Hydraulic Cement Concrete
 - c. AASHTO M43 - Standard Specification for Sizes of Aggregate for Road and Bridge Construction

9. Description

- 9.1. Crushed stone #67 is a manufactured base or fill material composed of crushed rocks with sizes between ¾" (19 mm) to #4 (4.75 mm).
- 9.2. This product must be created by mining a suitable rock formation and then breaking down the rock to varying sizes using a crusher. Then, the crushed stone shall be well graded conforming to the ASTM C-33, gradation 67 (¾") otherwise required.
- 9.3. Crushed stone shall be made using the following types of rocks:
 - a. Limestone
 - b. Traprock
 - c. Washed gravel
 - d. Granite
 - e. Argillite
 - f. Quartzite

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- 9.4. Crushed stone shall have angular and jagged edges. It is minimally compactable and workable by hand.
- 9.5. Crushed stone shall be clear, consisting of hard and durable uncoated rock free from injured amounts of soft, friable, thin, elongated, or laminated pieces, organic or other deleterious matter.
- 9.6. Some of the uses include the following:
- a. Precast foundation base material
 - b. road and slab base material
 - c. Fill and backfilling retaining walls
 - d. Material for slab and road base
 - e. Driveway, and walkaways gravel
 - f. Around drainpipes to boost drainage
 - g. Stabilize hard to compact soil
 - h. Premixed concrete and hot-mix asphalt

10. Inspection

The acceptance of any material or equipment shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it would not prevent subsequent rejection if such materials were found later to be defective.

11. Submitted proposals must include:

- a. Technical information
- b. Table of Compliance completed by the bidder with reference. (See Appendix 1)

— End of Specification —

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Appendix

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Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P/F)	Comments
1	Specification	The Proponent complies with the corresponding specification document.		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document. (ASTM C33, ASHTO M 6, Class A, AASHTO M43.		
3	Material	Composed of crushed rocks with sizes between $\frac{3}{4}$ " (19 mm) to #4 (4.75 mm).		











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Final Audit Report

2023-02-03

Created:	2023-02-02
By:	Rosalia Alverio (rosalia.alverio@lumapr.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAACkNJfm8_X6k8BONBGZ7F0ov7ld57Rlx

"4350.223 Crush Stone No. 67 (2-2-2023)" History

-  Document created by Rosalia Alverio (rosalia.alverio@lumapr.com)
2023-02-02 - 10:17:56 PM GMT
-  Document e-signed by Rosalia Alverio (rosalia.alverio@lumapr.com)
Signature Date: 2023-02-02 - 10:19:42 PM GMT - Time Source: server
-  Document emailed to Rafael Torres-Martinez (rafael.torresm@lumapr.com) for signature
2023-02-02 - 10:19:43 PM GMT
-  Email viewed by Rafael Torres-Martinez (rafael.torresm@lumapr.com)
2023-02-02 - 10:20:50 PM GMT
-  Document e-signed by Rafael Torres-Martinez (rafael.torresm@lumapr.com)
Signature Date: 2023-02-02 - 10:20:57 PM GMT - Time Source: server
-  Document emailed to ricardo.castro@lumapr.com for signature
2023-02-02 - 10:20:58 PM GMT
-  Email viewed by ricardo.castro@lumapr.com
2023-02-03 - 1:06:30 PM GMT
-  Signer ricardo.castro@lumapr.com entered name at signing as Ricardo Castro Gómez
2023-02-03 - 1:06:54 PM GMT
-  Document e-signed by Ricardo Castro Gómez (ricardo.castro@lumapr.com)
Signature Date: 2023-02-03 - 1:06:56 PM GMT - Time Source: server
-  Agreement completed.
2023-02-03 - 1:06:56 PM GMT