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Document Title:

High-Strength – 5000 - Concrete Mix

Document Type:

Specification

Document No.:

4300.50.158

Department:

Distribution Engineering

Version:

03

Effective Date:

Oct 14, 2025

For others, specify here

Shared document with: Transmission

**Select the Departments impacted by the document (If apply)*

For others, specify here

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision
01	2/2/2023	Initial Release
02	10/9/2023	Modification format and sections.
03	10/8/2025	General modifications and addition of various sections. TOC revised. Changed Document Number (Legacy Number: 4350.158) to new Engineering Records nomenclature number 4300.50.158.

Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
038-85507	85507	03	10/8/2025

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1. Introduction

This is a general specification that concrete mix to be used in the Distribution and Transmission System in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site specific conditions, quantity, and other requirements. This document includes the general characteristics of the products.

2. Special Requirement

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

3. Literature

- 3.1. Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature must include, but is not limited to, details of material, drawings, documented testing, and instructions for use and installation. The literature must be an official document from and certified by the manufacturer. **Failure to submit documents on time and duly certified by the manufacturer will cause bidder disqualification.**
- 3.2. If required by LUMA, final drawings and documentation shall be submitted by the vendor before the manufacturing and shipping process for approval.

4. Compatible with

For compatible manufacturer and model see Table 1. These models are examples of the product described in this document and do not represent a preference. LUMA will evaluate equally any model not listed here during any acquisition event.

5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 5.2. Individual package(s) shall be clearly marked with manufacturer name and item information (part number, serial number, quantity, etc.).
- 5.3. Packaging labels and tags shall be waterproof.

6. Packaging

- 6.1. All equipment/material 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.
- 6.2. A list of all parts included in the container and/or package must be provided at the time of delivery so the receiving personnel can verify that everything requested is present, avoiding any delay in the receiving process.

7. Number Per Package (Logistics)

See Table 1 for standard package or as required by LUMA Energy.

8. Acceptance Criteria

- 8.1. Product shall be manufactured in accordance with the latest issue below (section 8.2). When conflicts occur between purchaser's specifications and the latest issue below, the purchaser's specification shall prevail.
- 8.2. Latest applicable codes, standards, and other regulations:

ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C138	Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C387	Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar

- 8.3. If any other standard different from the ones indicated in this document is used, the supplier must provide information showing compatibility with the required ones.

9. Description

- 9.1. It is a commercial-grade blend of stone or gravel, sand, and cement, specially formulated to deliver early high strength.
- 9.2. It is used to create a 2 in. concrete slab around conduits inside precast concrete bases for switching units and pad-mounted transformers and additions can be used for any application requiring concrete such as: slabs, footings, steps, columns, walls, pedestals and poles bases.
- 9.3. Reaches a compressive strength of 5000 psi - 28 days.

10. Inspection

- 10.1. Upon inspection of incoming products, the purchaser reserves the right to refuse product shipments and to determine the acceptability or rejection of the product received. The supplier shall be liable for all costs incurred for a product that is rejected.
- 10.2. The acceptance of any product 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 products were found later to be defective or out of compliance.

11. Proposal Information

- 11.1. Submitted proposals must include:
- a. Technical information, drawings, and tests.
 - b. Table of Compliance completed by the bidder with reference (see Appendix 1).

12. Table 1: Warehouse and Asset Suite Identification Number

Warehouse Number	Asset Suite	Standard Package (bags sizes)	Compatible Model
038-85507	85507	50/60/80 lbs.	Quikrete-No. 1007

- End of Specification -

Appendix

Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P/F)	Comments
1	Industry Standards	The Proponent complies with the industry standards established in the specification document (ASTM).		
2	Descriptions	It is a commercial-grade blend of stone or gravel, sand, and cement, specially formulated to deliver early high strength.		
3	Compressive Strength	5000 psi 28 days.		
4	Standard Package (bags sizes)	50/60/80 lbs.		
Conclusion: Comply with Specification Document Num: 4300.50.158.				

NOTE: This table is only a checklist for reference. The compliance must be with the complete document. Filling out the table with “PASS” won’t be accepted as a compliance without the technical information required to certify it.












4300 50 158-Cement and Sand Topping Mix

Final Audit Report

2025-10-14

Created:	2025-10-08
By:	Rosalia Alverio (rosalia.alverio@lumapr.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAAtDELqjPeRfyY3rNTQ3-7pXCRsgQnGkrW

"4300 50 158-Cement and Sand Topping Mix" History

-  Document created by Rosalia Alverio (rosalia.alverio@lumapr.com)
2025-10-08 - 9:46:26 PM GMT
-  Document emailed to Rosalia Alverio (rosalia.alverio@lumapr.com) for signature
2025-10-08 - 9:46:30 PM GMT
-  Email viewed by Rosalia Alverio (rosalia.alverio@lumapr.com)
2025-10-08 - 9:48:26 PM GMT
-  Document e-signed by Rosalia Alverio (rosalia.alverio@lumapr.com)
Signature Date: 2025-10-08 - 9:49:05 PM GMT - Time Source: server
-  Document emailed to Oscar Venegas (oscar.venegas@lumapr.com) for signature
2025-10-08 - 9:49:06 PM GMT
-  Email viewed by Oscar Venegas (oscar.venegas@lumapr.com)
2025-10-09 - 1:47:32 PM GMT
-  Document e-signed by Oscar Venegas (oscar.venegas@lumapr.com)
Signature Date: 2025-10-09 - 1:48:31 PM GMT - Time Source: server
-  Document emailed to Rodolfo Flores (rodolfo.floresortiz@lumapr.com) for signature
2025-10-09 - 1:48:32 PM GMT
-  Email viewed by Rodolfo Flores (rodolfo.floresortiz@lumapr.com)
2025-10-09 - 1:53:19 PM GMT
-  Document e-signed by Rodolfo Flores (rodolfo.floresortiz@lumapr.com)
Signature Date: 2025-10-13 - 1:43:56 PM GMT - Time Source: server
-  Document emailed to Ricardo Castro (ricardo.castro@lumapr.com) for signature
2025-10-13 - 1:43:57 PM GMT

 Email viewed by Ricardo Castro (ricardo.castro@lumapr.com)

2025-10-14 - 8:05:08 PM GMT

 Document e-signed by Ricardo Castro (ricardo.castro@lumapr.com)

Signature Date: 2025-10-14 - 8:05:22 PM GMT - Time Source: server

 Agreement completed.

2025-10-14 - 8:05:22 PM GMT