

Supplier Certification

Production Location

100 Great Oaks Blvd, Suite 120, San Jose, CA 95119

Date Certification Created

12/11/2025

Product

ReAct® Cement Type GU/HE/HS/MS/MH/LH

Batch Number

Lot 141

Standard Physical Requirements			Chemical Composition		
Parameter	ReAct® Cement	C1157 Requirement	Parameter	ReAct® Cement	C1157 Requirement
Fineness			SiO ₂ (mass %)	0.1%	Report
Blaine, C204 (m ² /kg)	523	Report	Al ₂ O ₃ (mass %)	0.1%	Report
45 µm (No. 325) sieve, C430 (passing %)	100	Report	Fe ₂ O ₃ (mass %)	0.01%	Report
Density, C188 (g/cm ³)	2.54	Report	CaO (mass %)	55.1%	Report
Heat of hydration, C1702 (kJ/kg)			MgO (mass %)	0.2%	Report
3 days	22.1	≤ 200	SO ₃ (mass %)	0.33%	Report
7 days	22.1	≤ 225	Na ₂ O (mass %)	0.00%	Report
Time of Setting, C191 (min)			K ₂ O (mass %)	0.00%	Report
Initial	320	≥ 45 & ≤ 420	Loss on Ignition (mass %)	44.1%	Report
Air content of mortar volume, C185 (%)	5.2	≤ 12	Total (mass %)	99.96%	≥ 98 %
Compressive strength, C109 (psi)					
1 day	3,550	≥ 1,740			
3 days	3,980	≥ 3,480			
7 days	3,870	≥ 2,900			
28 days	4,210	≥ 4,060			
Mortar bar expansion at 14 days, C1038 (%)	0.004	≤ 0.020			
Sulfate expansion, C1012 (%)					
6 months	0.02	0.05			
12 months	0.02	0.10			

We certify that the above-described calcium carbonate cement, at the time of shipment, meets or exceeds all the C1157 requirements for Type GU/HE/HS/MS/MH/LH cement set forth herein.

Jorge Duque
Director of Quality & Performance

Field Number: 12

High Strength Grout Compression Test
Project Name: Fortera - Lab Testing, Master On-Call - Fortera - Lab Testing, Master On-Call

Permit # : N/A

Project No.: 22012 - 1

Sampled by: Jordan Penning

Report Date: 11/05/2025

Client: Fortera

Date of Sampling: 10/08/2025

Lab Log No.: 299454

Information provided by Field Technician

Mix #:	Supplier: Fortera	Contractor: Fortera	
Set: 1 of 1	Truck #:	Design Strength (psi): 4,000 @28 days	Ticket#: N/A
Sample Material/Shape: ASTM C1157 Physical Requirements Test		Type of Structure: Trial Batch	

Location when sampled: N/A

Concrete Quality	Result	Req'ment	Flow:	Actual	Req'ment	Density:	Actual	Test
Time of setting:	320 Min	C191			N/A		2.54 g/cm ³	C188
Heat of Hydration 3 day:	22.1 J/g	C1702	Air Content (%):	5.2	N/A	Sulfate Expansion	.02%	C1012
Heat of Hydration 7 day:	22.1 J/g	C1702	Batch Time:	9:30 AM		Mortar Bar Expansion 14d		C1038

Information supplied by Laboratory Technician
Date Received: 10/13/2025

Technician that received: JP

Test #	Age of Test (Days)	Date	Technician	Dimensions (inch)			X-section Area (in ²)	Total Load (lbs)	Strength (psi)
				Width	Width	Height			
A	1	10/09/2025	B.Treat	2.00	2.00	2.00	4.00	12,564	3,140 psi
B	1	10/09/2025	B.Treat	2.00	2.00	2.00	4.00	14,562	3,640 psi
C	1	10/09/2025	B.Treat	2.00	2.00	2.00	4.00	15,500	3,880 psi
D	3	10/11/2025	B.Treat	2.00	2.00	2.00	4.00	16,321	4,080 psi
E	3	10/11/2025	B.Treat	2.00	2.00	2.00	4.00	15,898	3,970 psi
F	3	10/11/2025	B.Treat	2.00	2.00	2.00	4.00	15,540	3,890 psi
G	7	10/15/2025	B. Treat	2.00	2.00	2.00	4.00	15,211	3,800 psi
H	7	10/15/2025	B. Treat	2.00	2.00	2.00	4.00	15,312	3,830 psi
I	7	10/15/2025	B. Treat	2.00	2.00	2.00	4.00	15,866	3,970 psi
J	28	11/05/2025	B. Treat	2.00	2.00	2.00	4.00	15,985	4,000 psi
K	28	11/05/2025	B. Treat	2.00	2.00	2.00	4.00	16,547	4,140 psi
L	28	11/05/2025	B. Treat	2.00	2.00	2.00	4.00	17,980	4,500 psi

MEETS DESIGN STRENGTH
28 Day Avg.: 4210 psi

Remarks: Received Sample Condition: Acceptable and/or Satisfactory

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 Reviewed by: Emanuel Valencia, Staff
Engineer

11/05/2025

Date

ASTM Standards Used: Unless noted, material was sampled and tested in accordance with ASTM C172, C31, C143, C231, C470, C511, C1077, C1231, C1064, C138 and E4. Compressive strength tests per ASTM C109

Testing was performed by qualified personnel in accordance with generally accepted industry practice, material testing consultants procedures and the above reference standards. This report is applicable only to the items listed herein. The test performed and in this report are not intended to be considered as any guarantee or warranty of suitability for service or fitness of use of items tested and it should not be relied on as such. The report has been prepared for the exclusive use of the client and any partial or whole reproduction without the consent of the client is prohibited.