



B20231022

CERTIFICATE NUMBER

October 22, 2023

DATE

Laboratory Test Certificate

MASONRY CEMENT/PLASTIC CEMENT/MORTAR CEMENT
(ULTRAMORTAR)

	Value	Type S Limit	Type M Limit
Compressive Strength			
7 Days	3900 psi (26.6 MPa)	1300 psi (9.0 MPa)	1800 psi (12.4 MPa)
28 Days	4720 psi (32.5 MPa)	2100 psi (14.5 MPa)	2900 psi (20.0 MPa)
Fineness - Retained on No. 325, %	4.9 %	24% Max	24% Max
Air Content of mortar, %	14.0 %	8.0 Min	8.0 Min
Masonry, C91		19.0 Max	19.0 Max
Plastic, C1328		20.0 Max	20.0 Max
Mortar, C1329		19.0 Max	19.0 Max
Time of Set, Gilmore Method			
Initial Set, minutes	195 min.	90 Min	90 Min
Final Set, minutes	290 min.	1000 Max	1000 Max
Autoclave Expansion, %	0.02 %	1.0 Max	1.0 Max

We certify that the above described cement, at the time of shipment, meets the requirements of ASTM C91-18 Type "M" Masonry Cement, C1328-19 Type "M" Plastic Cement and C1329-16a Type "S" Mortar Cement.

Cement Division

Office: 99-1300 Halawa Valley Street
Aiea, HI 96701
Phone: (808) 532-3400

Daniel K. Paaaina III
Cement Chemist