



Mill Test Certificate Report

Type: EcoCem PLC-Type IL (10) MS, MH

Test Period: 12/01/24
to: 12/31/24

Grind Number: December-24

Certification

Heidelberg Materials, certifies that at time of shipment, the portland limestone cement designated as Type IL, manufactured at the Union Bridge, Maryland plant conforms to the standard composition and physical requirements of the current Standard Specification for Blended Cement of ASTM C-595 Type IL and AASHTO M-240. This certification carries no other express or implied warranties and Heidelberg Materials, is not responsible for improper use or workmanship of the described cement.

General Information

Supplier: Heidelberg Materials	Source Location: Union Bridge Plant
Address: 675 Quaker Hill Road Union Bridge, MD 21074	Contact: Sales Office
Telephone: 800-638-1716	

Test Data on ASTM "Standard" Requirements

Chemical Requirements (ASTM C-595, Table 1)			Physical Requirements (ASTM C-595, Table 3)		
Item	Limit	Results	Item	Limit	Results
SO ₃	D	2.90	Fineness:		
Loss on Ignition	10.0 max	5.93	% Passing 45µm (No. 325)	A	97.81
			Blaine Fineness (m ² /Kg)	A	427
Additional Data					
C3A	A	7.21	Density (g/cc)	A	3.08
Chlorides	A	0.03	Autoclave Expansion (%)	0.8 max	-
Equivalent Alkalies	A	0.46	Vicat Setting Time:		
Heat of Hydration, C-1702 at 3-day, cal/g		64	Initial Set (minutes)	45 min	138
Notes			Air Content (%)	12 max	9.8
A: no limit applicable D: if SO ₃ exceeds 3.0%, C-1038 shall not be more than 0.020% MS, MH: Meets optional requirements for both moderate sulfate resistance and moderate heat of hydration			Compressive Strengths Mpa:		
			1-Day	A	15.37
			3-Day	13.0 min	28.94
			7-Day	20.0 min	36.67
			28-Day	25.0 min	46.69
			Compressive Strengths, PSI:		
			1-Day	A	2228
			3-Day	1890 min	4197
			7-Day	2900 min	5317
			28-Day	3620 min	6771
			Mortar Bar Expansion, C-1038, %	Max 0.020	-0.003

January 15, 2025
Date

Kagan Hoffman
Quality Control Manager: Kagan Hoffman