



## Material Certification Report

Brand: Skyway Cement  
 Material: Slag Cement  
 Grade: 100  
 Date Range: December 1-31, 2022  
 Lot Number: Multiple Lots

### Certification

This cement meets the requirements of ASTM C989 and AASHTO M302 specifications for Grade 100 slag cement.

### General Information

Supplier:	Skyway Cement Company LLC.	Source Location:	Skyway Cement Company LLC.
Address:	3020 East 103rd Street Chicago, IL 60617		3020 East 103rd Street Chicago, IL 60617
Telephone:	(872)302-5910	Contact:	Roberto Carrillo
Date Issued:	17-Jan-2023		

The following information is based on average test data during the test period.  
 The data is typical of slag cement shipped by Skyway Cement Company LLC.; individual shipments may vary.

### Test Data on ASTM Standard Requirements

Chemical			Physical		
Item	Limit <sup>A</sup>	Result	Item	Limit <sup>A</sup>	Result
Sulfide S (%)	2.5 max	0.90	+45 µm (No. 325) Sieve (%)	20 max	0.72
Sulfate Ion - SO <sub>3</sub> (%)	-	0.00	Blaine Fineness (m <sup>2</sup> /kg)	-	560
Aluminum Oxide (%)	-	11.61	Air Content (%)	12 max	3.87
Chloride - CL (%)	-	0.09	Slag Activity Index (%)		
Total Alkalies as Na <sub>2</sub> O (%)	-	0.64	Avg 7 Day Index	-	81
			Avg 28 Day Index	95 min	109
			Compressive Strength - MPa (psi):		
			Slag + Reference Cement		
			7 Day	-	21 (3131)
			28 Day	-	37 (5446)
			Reference Cement <sup>B</sup>		
			7 Day	-	27 (3944)
			28 Day	-	34 (5056)

### Reference Cement Qualification Data

Chemical			Physical		
Item	Limit <sup>A</sup>	Result	Item	Limit <sup>A</sup>	Result
Total Alkalies as Na <sub>2</sub> O (%)	0.60 - 0.90	0.83	Blaine Fineness (m <sup>2</sup> /kg)	-	372
C <sub>3</sub> S	-	40.8	Compressive Strength - MPa (psi):		
C <sub>2</sub> S	-	30.7	7 Day	-	27 (4006)
C <sub>3</sub> A	-	10.5	28 Day	34.5 (5000) min	34 (5018)
C <sub>4</sub> AF	-	7.8			

### Notes

<sup>A</sup>Dashes in the limits columns means Not Applicable

<sup>B</sup>Reference cement results from procedure "Preparation of Specimens". Information on Reference Cement qualification available upon request.

Specific Gravity: 2.89

This data may have been reported on previous mill certificates. It is typical of the cement being currently shipped which was produced in December of 2022.

Quality Manager