



Material Certification Report

Brand: Skyway Cement
 Material: Slag Cement
 Grade: 100
 Date Range: October 1-31, 2017
 Lot Number: Multiple Lots

Certification

This cement meets the requirements of ASTM specification C989 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:	14-Nov-2017		

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 ^A	Result	Item	Limit ^A	Result
Sulfide S (%)	2.5 max	0.98	+45 µm (No. 325) Sieve (%)	20 max	0.38
			Blaine Fineness (m ² /kg)	-	570
Sulfate Ion - SO ₃ (%)	-	0.04	Air Content (%)	12 max	4.43
			Slag Activity Index (%)		
			Avg 7 Day Index	75 min	82
			Avg 28 Day Index	95 min	115
			Compressive Strength - MPa (psi):		
			Slag + Reference Cement		
			7 Day	-	24 (3512)
			28 Day	-	43 (6248)
			Reference Cement ^B		
			7 Day	-	29 (4311)
			28 Day	-	37 (5430)

Reference Cement Qualification Data

Chemical			Physical		
Item	Limit ^A	Result	Item	Limit ^A	Result
Total Alkalies as Na ₂ O (%)	0.60 - 0.90	0.84	Blaine Fineness (m ² /kg)	-	368
C ₃ S	-	55.3	Compressive Strength - MPa (psi):		
C ₂ S	-	16.6	7 Day	-	30.3 (4390)
C ₃ A	-	7.9	28 Day	34.5 (5000) min	38.9 (5640)
C ₄ AF	-	8.8			

Notes

^ADashes in the limits columns means Not Applicable

^BReference 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 October 2017.