

Manville
July 24, 1953

PLAINTIFF'S
EXHIBIT
K-1449

E.C. Lindstrom, DHC.

Swindell-Dressler Blocks
Order R-15951
U.S. Steel Corp.
Morrisville, N.J.
Yours of 6/10/53

This order has now been completed. As you requested, we show below the physical test data on this material. From the material manufactured for this order two sets of 5 blocks each were selected at random and submitted to the Control Laboratory for test. The test data shown below is contained in Control Laboratory Reports CC-5858 of 6/17/53 and CC-5953 of 7/6/53.

DATA:

Report CC-5858 of 6/17/53.

Sample No.	Finished Product MK-1915					J-M Spec.
	1	2	3	4	5	
Moisture	1.2%	2.1%	1.5%	1.4%	2.2%	4% Max.
Hardness (mm)	.13	.14	.17	.14	.17	(0.4 mm. Max. - Av. of 5 0.5 mm. Max. Indiv.

Properties of Superax Stock Prior To Silicating

Sample No.	1	2	3	4	J-M Spec.
% Mag.	5.2%	5.5%	5.5%	5.5%	5 - 7%*
Shrinkage: (%)					
Length	2.47	2.25	2.11	2.30	
Width	2.20	2.10	2.18	1.73	
Thickness	2.72	2.59	2.56	2.60	
Average	2.46	2.31	2.28	2.21	3.0% Max.
Sv	7.24	6.78	6.71	6.49	
S1	2.47	2.31	2.29	2.21	3.0% Max.
Ign. Loss	3.0	3.3	3.4	3.4	10.0% Max.
Original Hd. (mm)	0.44	0.51	0.51	0.56	0.75 mm. Max.
Fired Hd. (mm)	0.38	0.50	0.46	0.46	1.15 mm. Max.

*Note: On orders for Swindell-Dressler, Magnesia limits are 5 - 7%.

DEFENDANT'S
EXHIBIT

01-17

DATA: (Cont'd.)

Report CC-5953 of 7/6/53

Properties of Superex Stock Prior to Silicating

Sample No.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>J-M Spec.</u>
% Mag.	4.8%	4.8%	5.0%	5.0%	5 - 7%
Shrinkage:					
Length	1.07%	1.21%	1.23%	1.30%	
Width	1.27	1.42	1.47	1.45	
Thickness	0.79	1.09	1.14	1.00	
Average	1.04	1.24	1.28	1.25	3.0% Max.
S _v	3.11	3.67	3.83	3.70	
S ₁	1.03	1.24	1.29	1.24	3.0% Max.
Ign. Loss	2.8	2.9	3.1	3.0	10.0% Max.
Original Hd. (mm.)	0.58	0.57	0.56	0.53	0.75 mm. Max.
Fired Hd.(mm.)	0.50	0.50	0.49	0.46	1.15 mm. Max.
Density (#/Cu.Ft.)	25.8#	26.0#	25.4#	26.1#	27#/Cu.Ft. Max.

Finished Product MX-1915

Sample No.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
Moisture	0.7%	0.7%	0.6%	0.6%	0.8%	4% Max.
Hardness (mm.)	0.15	0.25	0.33	0.34	0.38	{ 0.4 mm. Max. - Avg. of 5 0.5 mm. Max. Indiv.
Density (#/Cu.Ft.)	26.5#	26.0#	25.4#	25.5#	26.3#	

It will be noted that the material complies with specification requirements. In addition to the above tests, we also selected samples at random after silicating and drying for submission to the Control Laboratory. The Control Laboratory test results on this material are shown in Control Laboratory Report CC-5953 of 7/6/53 and are as follows:

DATA: (Cont'd.)

Report CC-5953 of 7/6/53

Shrinkage On Samples Cut From Center of Blocks.

Sample	1	2	3	4	J-M Spec.
Length	1.44%	1.41%	1.30%	1.14%	
Width	1.54%	1.54%	1.56%	1.45%	
Thickness	1.39%	1.39%	1.25%	1.15%	
Average	1.46%	1.45%	1.37%	1.25%	3.0% Max.
S _v	4.30%	4.28%	4.06%	3.69%	
S ₁	1.45%	1.45%	1.37%	1.25%	3.0% Max.
Ignition Loss	2.8%	2.9%	3.0%	2.7%	10.0% Max.
Original Hd. (mm.)	0.62	0.50	0.63	0.51	0.75 mm. Max.
Fired Hd. (mm.)	0.40	0.38	0.45	0.43	1.15 mm. Max.
Density (#/Cu.Ft.)	25.3#	24.4#	24.8#	25.3#	27#/Cu.Ft. Max.

The Production Department used #3 Loco to rough out the block and a circular saw to cut the blocks to the desired length. The band saw was then used to make the finished smooth surface. We first inspected the block from each setup individually 100% and in groups of 4 or 5 blocks 100% until we were assured the setup was correct and would remain correct. Then the 100% individual inspection was discontinued and the 100% inspection in group of 4 or 5 blocks was used for the remainder to insure that dimensions and squareness were satisfactory. Our inspection throughout indicated that material complied with the provisions of the Finished Product Specification and the requirements of Swindell-Dressler.

J.R. Robson

LH:MG

cc: H.J. O'Brien
H.E. Bird
R. Jacobs
E.C. Lindstrom, DHQ.
M.W. Burleson, DHQ.