

**110 P.C.F.  
DENSITY:**

AGGREGATES: NORLITE 3/4" - NO. 4, NATURAL SAND  
Probable 28 Day Compressive Strength

	<u>2500</u>	<u>3000</u>	<u>3500</u>	<u>4000</u>	<u>4500</u>	<u>5000</u>
Cement, lb. (sk.)	470 (5.0)	517 (5.5)	564 (6.0)	611 (6.5)	658 (7.0)	705 (7.5)
Norlite, 3/4" to No. 4, lbs. (oven dry)	750	750	750	750	750	750
Natural Sand, (SSD) lb.	1490	1450	1410	1370	1330	1290
Active Water, gal. (lb.)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)
Slump, in. (in place)	3-4	3-4	3-4	3-4	3-4	3-4
Air Content, % (in place)	4-6	4-6	4-6	4-6	4-6	4-6

<u>Norlite, % Absorption</u>	<u>Fresh Density (p.c.f. ± 3)</u>					
5%	112.5	112.5	112.5	112.5	112.5	112.5
15%	115.3	115.3	115.3	115.3	115.3	115.3
25%	118.0	118.0	118.0	118.0	118.0	118.0
	<u>Density (p.c.f. ± 3)</u>					
	110	110	110	110	110	110

EQUILIBRIUM DENSITY APPROX. 107 PCF

**110 P.C.F.  
DENSITY:**

AGGREGATES: NORLITE 3/8" - NO. 8, NATURAL SAND  
Probable 28 Day Compressive Strength

	<u>2500</u>	<u>3000</u>	<u>3500</u>	<u>4000</u>	<u>4500</u>	<u>5000</u>
Cement, lb. (sk.)	470 (5.0)	517 (5.5)	564 (6.0)	611 (6.5)	658 (7.0)	705 (7.5)
Norlite, 3/8" to No. 8, lbs. (oven dry)	800	800	800	800	800	800
Natural Sand (SSD) lb.	1430	1390	1350	1300	1250	1210
Active water, gal. (lb.)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)
Slump, in. (in place)	3-4	3-4	3-4	3-4	3-4	3-4
Air Content, % (in place)	4-6	4-6	4-6	4-6	4-6	4-6

<u>Norlite, % Absorption</u>	<u>Fresh Density (p.c.f. ± 3)</u>					
5%	112.4	112.4	112.4	112.4	112.4	112.4
15%	115.4	115.4	115.4	115.4	115.4	115.4
25%	118.3	118.3	118.3	118.3	118.3	118.3
	<u>Density (p.c.f. ± 3)</u>					
	110	110	110	110	110	110

NOTE: These concrete mix proportions are based on the use of an air entraining admixture conforming with the requirements of Standard Specification for Air-Entraining Admixtures for Concrete, ASTM Designation: C 260, and a water reducing admixture conforming with the requirements of Standard Specifications for Chemical Admixtures for Concrete, ASTM Designation: C 494. The following specific gravities were used to compile mix proportions. Cement 3.15, 3/4" Norlite 1.25, 3/8" Norlite 1.30, Sand 2.63 Water 1.0  
\*Trial mixes must be carried on to establish air and slump at the pump for required strength and fresh density in place.

EQUILIBRIUM DENSITY APPROX. 107 PCF

**115 P.C.F.  
DENSITY:**

AGGREGATES: NORLITE 3/4" - NO. 4, NATURAL SAND  
Probable 28 Day Compressive Strength

	<u>2500</u>	<u>3000</u>	<u>3500</u>	<u>4000</u>	<u>4500</u>	<u>5000</u>
Cement, lb. (sk.)	470 (5.0)	517 (5.5)	564 (6.0)	611 (6.5)	658 (7.0)	705 (7.5)
Norlite, 3/4" to No. 4, lbs. (oven dry)	675	675	675	675	675	675
Natural Sand (SSD) lb.	1640	1600	1560	1620	1480	1440
Active water, gal. (lb.)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)	36 ± 1 (300)
Slump, in. (in place)	3-4	3-4	3-4	3-4	3-4	3-4
Air Content, % (in place)	4-6	4-6	4-6	4-6	4-6	4-6

<u>Norlite, % Absorption</u>	<u>Fresh Density (p.c.f. ± 3)</u>					
5%	115.4	115.4	115.4	115.4	115.4	115.4
15%	117.8	117.8	117.8	117.8	117.8	117.8
25%	120.4	120.4	120.4	120.4	120.4	120.4
	<u>Density (p.c.f. ± 3)</u>					
	113	113	113	113	113	113

EQUILIBRIUM DENSITY APPROX. 110 PCF

**115 P.C.F.  
DENSITY:**

AGGREGATES: NORLITE 3/8" - NO. 8, NATURAL SAND  
Probable 28 Day Compressive Strength

	<u>2500</u>	<u>3000</u>	<u>3500</u>	<u>4000</u>	<u>4500</u>	<u>5000</u>
Cement, lb. (sk.)	470 (5.0)	517 (5.5)	564 (6.0)	611 (6.5)	658 (7.0)	705 (7.5)
Norlite, 3/8" to No. 8, lbs. (oven dry)	700	700	700	700	700	700
Natural Sand (SSD) lb.	1630	1590	1550	1510	1470	1430
Active water, gal. (lb.)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)	37 ± 1 (308)
Slump, in. (in place)	3-4	3-4	3-4	3-4	3-4	3-4
Air Content, % (in place)	4-6	4-6	4-6	4-6	4-6	4-6

<u>Norlite, % Absorption</u>	<u>Fresh Density (p.c.f. ± 3)</u>					
5%	116.1	116.1	116.1	116.1	116.1	116.1
15%	118.6	118.6	118.6	118.6	118.6	118.6
25%	121.2	121.2	121.2	121.2	121.2	121.2
	<u>Density (p.c.f. ± 3)</u>					
	113	113	113	113	113	113

NOTE: These concrete mix proportions are based on the use of an air entraining admixture conforming with the requirements of Standard Specification for Air-Entraining Admixtures for Concrete, ASTM Designation: C 260, and a water reducing admixture conforming with the requirements of Standard Specifications for Chemical Admixtures for Concrete, ASTM Designation: C 494. The following specific gravities were used to compile mix proportions. Cement 3.15, 3/4" Norlite 1.25, 3/8" Norlite 1.30, Sand 2.63 Water 1.0  
\*Trial mixes must be carried on to establish air and slump at the pump for required strength and fresh density in place.

EQUILIBRIUM DENSITY APPROX. 110 PCF

## SUGGESTED MIX PROPORTIONS FOR ALL NORLITE INSULATING AND ROOF FILL MIXES

90 P.C.F.  
DENSITY:

AGGREGATES: NORLITE 3/4" - NO. 4. NORLITE FINES  
Probable 28 Day Compressive Strength

	<u>2500</u>	<u>3000</u>	<u>3500</u>	<u>4000</u>
Cement, lb. (sk.)	517 (5.5)	564 (6.0)	611 (6.5)	658 (7.0)
Norlite, 3/4" to No. 4, lbs. (oven dry)	650	650	650	650
Norlite Fines, Oven Dry lb.	980	955	930	900
Water, Total, Gal. (lb.)	48 (400)	48 (400)	48 (400)	48 (400)
Slump, in.	3-4	3-4	3-4	3-4
Air Content, %	4-6	4-6	4-6	4-6
Fresh Density, lb./cu. ft.	96 ± 3	96 ± 3	96 ± 3	96 ± 3
Density, lb./cu. ft.	90 ± 3	90 ± 3	90 ± 3	90 ± 3

## SUGGESTED MIX PROPORTIONS FOR ALL NORLITE INSULATING AND ROOF FILL MIXES

90 P.C.F.  
DENSITY:

AGGREGATES: NORLITE 3/8" - NO. 4, NORLITE FINES  
Probable 28 Day Compressive Strength

	<u>2500</u>	<u>3000</u>	<u>3500</u>	<u>4000</u>
Cement, lb. (sk.)	517 (5.5)	564 (6.0)	611 (6.5)	658 (7.0)
Norlite, 3/8" to No. 8, lbs. (oven dry)	625	625	625	625
Norlite Fines, Oven Dry lb.	1000	975	950	925
Water, Total, Gal. (lb.)	51 (425)	51 (425)	51 (425)	51 (425)
Slump, in.	3-4	3-4	3-4	3-4
Air Content, %	5-7	5-7	5-7	5-7
Fresh Density, lb./cu. ft.	96 ± 3	96 ± 3	96 ± 3	96 ± 3
Density, lb./cu. ft.	90 ± 3	90 ± 3	90 ± 3	90 ± 3

NOTE: These concrete mix proportions are based on the use of an air entraining admixture conforming with the requirements of Standard Specification for Air-Entraining Admixtures for Concrete, ASTM Designation: C 260, and a water reducing admixture conforming with the requirements of Standard Specifications for Chemical Admixtures for Concrete, ASTM Designation: C 494. The following specific gravities were used to compile mix proportions. Cement 3.15, 3/4" Norlite 1.25, 3/8" Norlite 1.30, Sand 2.63 Water 1.0

\*Trial mixes must be carried on to establish air and slump at the pump for required strength and fresh density in place.

*Norlite*

## SUGGESTED MIX PROPORTIONS FOR ALL NORLITE INSULATING AND ROOF FILL MIXES

**80 P.C.F.  
DENSITY:**

AGGREGATES: NORLITE 3/4" - NO. 4, NORLITE FINES  
Probable 28 Day Compressive Strength

	<u>1000</u>	<u>1500</u>	<u>2000</u>
Cement, lb. (sk.)	376 (4.0)	423 (4.5)	470 (5.0)
Norlite, 3/4" to No. 4, lbs. (oven dry)	650	650	650
Norlite Fines, Oven Dry lb.	925	875	825
Water, Total, Gal. (lb.)	48 (400)	48 (400)	48 (400)
Slump, in.	4-5	4-5	4-5
Air Content, %	10	10	10
Fresh Density, lb./cu. ft.	86 ± 3	86 ± 3	86 ± 3
Density, lb./cu. ft.	80 ± 3	80 ± 3	80 ± 3

## SUGGESTED MIX PROPORTIONS FOR ALL NORLITE INSULATING AND ROOF FILL MIXES

**84 P.C.F.  
DENSITY:**

AGGREGATES: NORLITE 3/8" - NO. 8, NORLITE FINES  
Probable 28 Day Compressive Strength

	<u>1000</u>	<u>1500</u>	<u>2000</u>
Cement, lb. (sk.)	376 (4.0)	423 (4.5)	470 (5.0)
Norlite, 3/8" to No. 8, lbs. (oven dry)	650	650	650
Norlite Fines, Oven Dry lb.	980	930	885
Water, Total, Gal. (lb.)	51 (425)	51 (425)	51 (425)
Slump, in.	4-5	4-5	4-5
Air Content, %	10	10	10
Fresh Density, lb./cu. ft.	90 ± 3	86 ± 3	86 ± 3
Density, lb./cu. ft.	84 ± 3	84 ± 3	84 ± 3

NOTE: These concrete mix proportions are based on the use of an air entraining admixture conforming with the requirements of Standard Specifications for Air-Entraining Admixtures for Concrete, ASTM Designation: C 260, and a water reducing admixture conforming with the requirements of Standard Specification for Chemical Admixtures for Concrete, ASTM Designation: C 494.



**[CLICK TO LAUNCH NORLITE'S CONCRETE MIX DESIGN WORKSHEET](#)**

MICROSOFT EXCEL® NEEDED TO RUN THIS APPLICATION.



*Norlite*