

Lightweight Insulating Concrete Mix Design Charts



With you every step of the way

Insulcel-E Mix Designs

Compressive Strength (psi)	Wet Density (pcf)	Dry Density (pcf)	Cement (lb.)	Foam (CF)	Water (gal.)	R-value per inch	Yield (CF)
200	36	28–32	608	19	37	1.20	26–27
250	38	30–34	641	18	40	1.15	26–27
300	40	32–36	675	18	42	1.10	26–27
350	42	34–38	718	18	44	1.03	26–27
400	44	36–40	762	17	45	0.99	26–27
450	46	38–42	807	17	46	0.95	26–27
500	48	40–44	842	16	49	0.90	26–27

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Compressive Strength (psi)	Wet Density (pcf)	Dry Density (pcf)	Cement (lb.)	Foam (CF)	Water (gal.)	R-value per inch	Yield (CF)
200	37	30	630	18.9	38	1.33	26–27
330	40	34	695	17.9	42	1.15	26–27
450	45	38	787	16.7	47	1.02	26–27
640	50	43	878	15.5	53	0.94	26–27
790	55	47	970	14.3	58	0.83	26–27

ZIC (Zonolite Insulating Concrete) Mix Designs

Mix Ratio (Cement: ZIC)	Compressive Strength (psi)	Wet Density (pcf)	Dry Density (pcf)	Cement (bags)	ZIC Bags (cu. ft.)	Water (gal.)	R-value per inch	Yield (CF)
1:4	250–400	53–63	31–37	6 (564 lb.)	4	90	1.15	24
1:6	125–225	44–60	22–28	4 (376 lb.)	6	90	1.49	24
1:8	90–125	42–52	18–22	3.5 (329 lb.)	8	90	1.67	24

NVS (Non-Vented Substrate) Mix Design

Compressive Strength (psi)	Wet Density (pcf)	Dry Density (pcf)	Aggregate (bags)	Cement (bags)	Water (gal.)	R-value per inch	Yield (CF)
300	60–68	36	6 (NVS)	7 (564 lb.)	90	0.9	21

Zonocel Mix Design

Compressive Strength (psi)	Wet Density (pcf)	Dry Density (pcf)	Aggregate (bags)	Cement (bags)	Foam (CF)	Water (gal.)	R-value per inch	Yield (CF)
200	43–53	30	2 (ZIC)	7 (658 lb.)	13	50	1.08	24