C-Crete TECHNOLOGIES

Cement-Free Concrete

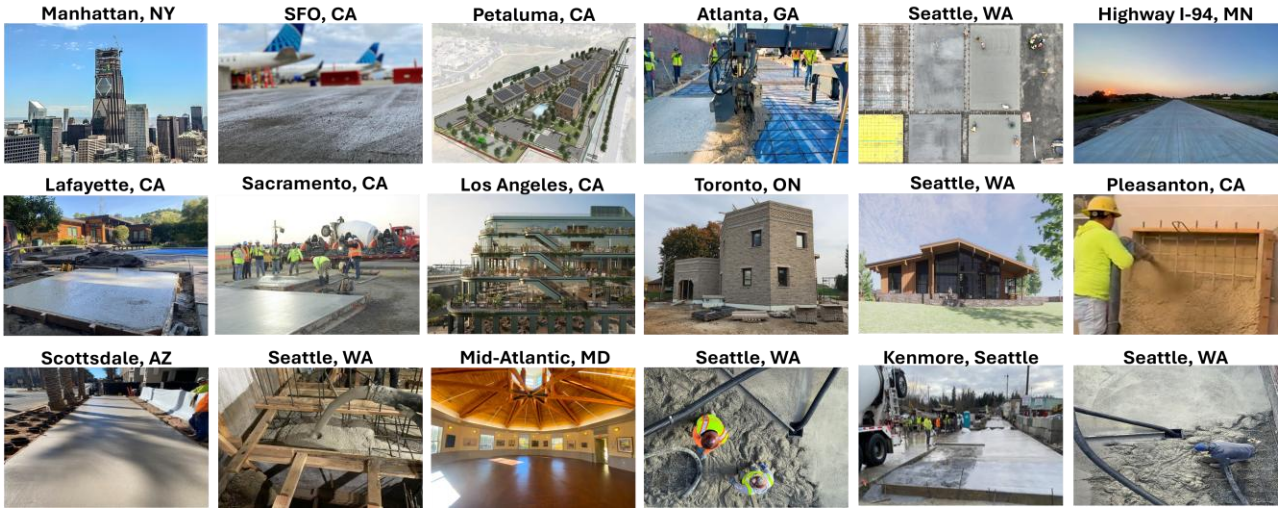
Portland cement concrete is the most widely used construction material, but it contributes to ~8% of total CO_2 emissions. C-Crete has pioneered a breakthrough pourable cement-free concrete that is essentially CO_2-emission free and actually absorbs CO_2 over time while exceeding Portland cement concrete in performance.

PRODUCT FEATURES

- ✓ Zero use of Portland Cement (PC)
- ✓ Decarbonizing cement/concrete: saving up to 1 ton CO_2 per ton of C-Crete binder used
- ✓ Ultra-low embodied energy by using natural rocks or industrial by-products as the binder
- ✓ Saving water: Our concrete product requires up to ~15% less water, helping environment
- ✓ Meeting standards: ASTM C1157, freeze-thaw, drying shrinkage, ASR, chloride/acid resistance, etc.
- ✓ No need for new code development: C-Crete falls perfectly under existing ASTM C1157
- ✓ Optimal heat of hydration: around 105 F meeting ACI 301 even for large mat foundations
- ✓ Easy implementation: a drop-in technology & easily pumpable concrete via line/boom pumps
- ✓ Superior properties: mechanical properties, durability, etc.
- ✓ Compatibility with conventional admixtures
- ✓ Cost-parity with conventional concrete
- ✓ High solar reflectance: minimal heat island effect
- ✓ Exceptional aesthetics: Earthy tone concrete representing the color of our planet (no pigments)
- ✓ Scalable both in feedstocks and manufacturing

REPRESENTATIVE RESIDENTIAL, COMMERCIAL AND FEDERAL PROJECTS

4000+ tons of C-Crete product was poured in the footings, foundations, shear walls, tilt-up walls, ICF walls, slabs, columns, highways, driveways, steps and sidewalks of different projects. This includes floor slabs in the new global HQ of JPMorganChase Building designed by Foster+Partners (NYC); data centers for major hyperscalers in Seattle and Atlanta, a section of Highway I-94 in Minnesota; slabs and foundations at San Francisco International airport (SFO); foundations for a large (131-unit) residential complex in California, a museum in Washington DC; a three story residential building in Canada; etc.



C-Crete has used local ready-mix companies (e.g. Heidelberg Materials, Cemex, Holcim) for concrete delivery on these projects. C-Crete's oldest pour is 3+ year old, and there is no sign of degradation or cracking. More projects are currently underway in different cities. C-Crete will arrange with your local ready-mix company to deliver the C-Crete product to your job site.

AWARDS

C-Crete has been recognized with five prestigious awards in the community so far:

1. Most Innovative Companies 2026 (*Fast Company*)
2. 2025 Concrete Innovation Award (*US National Ready Mix Concrete Association*)
3. Build Better Innovation Challenge (*Elemental Impact*)
4. 2024 Concrete Innovation Award (*US National Ready Mix Concrete Association*)
5. Top 2023 visionaries (*Engineering-News Record*)

TYPICAL TECHNICAL DATA

Data are verified by independent 3rd parties. Compressive strength can reach >10,000 psi by changing the mix design.

Property	ASTM/AASHTO Standards	Protocol	C-Crete™	Min or Max per Standard	Unit
Compressive Strength @ 3 days	ASTM C1157	C109/C109M	>4500	>1900	PSI
Compressive Strength @ 7 days	ASTM C1157	C109/C109M	>5200	>2900	PSI
Compressive Strength @ 28 days	ASTM C1157	C109/C109M	>7000	>4060	PSI
Mortar Bar Expansion @ 14 days	ASTM C1157	C1038/C1038M	0.012	<0.02	%
Time of Setting, Vicat Test (initial set time)	ASTM C1157	C191	165	>45 and <420	minutes
Air Content	ASTM C1157	C185	2.5	<12	%
Autoclave Length Change	ASTM C1157	C151/C151M	0.21	<0.8	%
Alkali Silica Reaction @ 14 days	ASTM C1157	C1260	0.01	<0.02	%
Alkali Silica Reaction @ 56 days	ASTM C1157	C1260	0.02	<0.06	%
Drying Shrinkage @ 28 days	ASTM C157	-	0.03	<0.05	%
Chloride Diffusivity (Acid soluble chloride ion)	AASHTO T 260-97	-	0.2	<0.4	%
Freeze-Thaw Resistance	ASTM C666/C666M	-	>90%	>60%	%

DIFFERENRT COLORS AND SURFACE FINISHES

C-Crete product comes with different earthy tone colors (without any dye or pigment) and can undergo conventional concrete processing for various surface finishes such as exposed aggregates, polished, polished and sealed, sandblasted (Terrazzo floors), etc. See samples on the first page.

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