Buildings for the Future

GigaCrete's revolutionary new building system offers an environmentally conscious and truly Green affordable solution that has been viewed by experts as one of the most innovative new solutions on the market today. The GigaCrete system provides superior performance in terms of strength, resistance to fire, moisture, insects, mold, mildew, abrasion and cracking over time. GigaCrete homes can be built in weeks not months utilizing low skilled labor thus offering employment to a wider range of the population. The lightweight components are also carried by hand, eliminating costly cranes and lifting equipment on a jobsite. The GigaCrete home is significantly more energy efficient than traditional construction methods. We utilize a minimum of 6 inches of EPS foam and eliminate any thermal bridging by burying the steel framing within the foam core which helps lower the homes overall operating expenses. GigaCrete homes are not reliant on Portland cement, a well know CO2 (*greenhouse gas*) producer or wood framed construction which causes massive deforestation.

GigaCrete homes are based on traditional steel framing methods commonly utilized throughout the world today for over 25 years. GigaCrete's homes can be designed to meet seismic zone 4 as well as hurricane force winds up to 180 mph. Our patented steel stud connectors are precut for accuracy eliminating jobsite waste. Each stud slides down into precut channels cut into solid panels of EPS foam which are then screwed to top and bottom tracks to meet strict international building codes. The steel studs are pre-engineered for structural needs and fit perfectly inside the pre-cut EPS panels requiring a very low labor skill set.

Every home's interior is finished with PlasterMax (*GigaCrete's proprietary interior finish*) the only code approved finish replacing gypsum board over EPS (*expanded polystyrene)*. PlasterMax is a true one-coat high performance interior finish that naturally bonds with EPS foam, cement block and other substrates lending itself to be utilized in both renovation of existing structures and new construction of the GigaCrete home. Some of the performance benefits are; tough protective finish with 9,000 psi impact resistance, extremely high abrasion resistance, zero flame spread and smoke developed, noncombustible, exceeds EPA and CA indoor air quality & VOC standards and will not support mold and mildew growth.

No home is complete without a barrier to the elements, so every GigaCrete home is finished with StuccoMax (*GigaCrete's proprietary exterior finish*) our one-coat high performance exterior coating that naturally bonds with EPS foam, cement block and other substrates used in both renovation of existing structures and new construction of the GigaCrete home. StuccoMax supports an impressive list of attributes including 100 % waterproof, 3,500 psi compressive strength, noncombustible with zero flame spread and zero smoke development and it is resistant to mold and mildew growth. Competitors stucco products are multiple coat applications; StuccoMax not only a green eco-friendly product, it is also very fast to apply, it has high impact and abrasion resistance and also resists freeze thaw damage. GigaCrete has proven applications from the steamy jungles of Colombia to frigid Alaskan winters.

PLASTERMAX™ Interior Plaster Product Testing Overview

PLASTERMAX™- Abuse-Resistant Interior Veneer Plaster

Meets ICC-ES code required fire protection for EPS foam walls (UBC-26-3, NFPA 286 and IBC803.2.1, Room Corner Fire Tests)
Meets 30 Minute Elevated Temperature Exposure Test outline in IBC Section 803.3
NFPA 286 Standard fire test method for evaluating contribution of room fire growth
ASTM E-84 Standard Test Method for Surface Burning Characteristics of Building Materials
UBC 26-3 Room fire test standard for interior foam plastic systems.
ASTM C587 Joint Strength Standard Specification for Gypsum Veneer Plaster
ASTM C1629/C 1629M Abuse Resistance Test
ASTM E C1629-06 Abuse Resistance Test & ASTM D 4977-03 Abrasion Test
ASTM C 587-04 Bond Strength, Impact Strength, Joint Strength & Flexure Test
ASTM G21-96 Fungal Resistance Test will not support mold or Mildew, meets acceptance criteria
Minimum 6,000 PSI compressive strength, (Per ASTM C109)
Non-combustible building material (Per ASTM E136)
Exceeds Surface abrasion ASTM D 4977 a measure of resistance to scratch and score
Meets all the emission level requirements of GREENGUARD Report No. 15995-06)
Exceeds stringent California Air Quality Standards
Recognized by LEED and US Green Building Council qualifies for points

STUCCOMAX™ Exterior Plaster Product Testing Overview

Meets ICC-ES Code for Exterior Stucco Base Coat
ASTM C1629/C 1629M Abuse Resistance Test meets acceptance criteria
ASTM E C1629-06 Abuse Resistance Test & ASTM D 4977-03 Abrasion Test meets acceptance criteria
ASTM C 587-04 Bond Strength, Impact Strength, Joint Strength & Flexure Test, meets acceptance criteria
ASTM G21-96 Fungal Resistance Test will not support mold or Mildew, meets acceptance criteria
ASTM C 109 Compressive Strength Minimum 3,000 PSI compressive strength @ 7 Days
ASTM C 293 Flexural Strength 900 psi in 7 days meets acceptance criteria
ASTM C 642 Cold Water Absorption 2-3% in 7 days meets acceptance criteria
ASTM C 157 Shrinkage Air-Cure 0.002% in 7 days meets acceptance criteria
AC 11 >40 Cycles No Cracking, Crazing, Erosion meets acceptance criteria
ASTM E 136 Non-combustible building material, meets acceptance criteria
Exceeds Surface abrasion ASTM D 4977 a measure of resistance to scratch and score
Meets all the emission level requirements of GREENGUARD Report No. 15995-06)
Exceeds stringent California Air Quality Standards
Recognized by LEED and US Green Building Council qualifies for points

EPS FOAM
Star Foam, ICC-ES ESR-1566

STEEL
Studs ICC-ES 4943P
Track ICC-ES 2281-C43532-06

TEK SCREWS
ICC-ES ESR 1408