A SUPER ABUNDANT – LOW ENERGY CEMENT FOR OUR FUTURE -
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“Cement production is growing by 2.5% annually, and is expected to rise from 2.55 billion tons in 2006 to 3.7-4.4 billion tons by 2050”

Texas as Canary for Climate Change

- Temperature Rise
- Crop Disruption
- Wildfire
- Drought
- Expansive Soils
Texas as Canary for Climate Change

- Flash Flood
- Tornado
- Salinization
- Biodiversity Loss
- Vector Diseases
goHom™ System
## Texas is #1 in Disaster & Cement Production

### Disaster By State

<table>
<thead>
<tr>
<th>STATE</th>
<th>NUMBER OF DISASTER DECLARED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>88</td>
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<tr>
<td>California</td>
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<td>Missouri</td>
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</tr>
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<td>Arkansas</td>
<td>53</td>
</tr>
</tbody>
</table>

### Cement Production

1. Texas
2. California
3. Missouri
4. Florida
5. Pennsylvania
6. Michigan
7. Alabama
MgO CEMENT
Saline Water Resources in Texas

TEXAS possesses 110% MgO cement compared to portland cement.
MgO CEMENT

Availability of Magnesium Oxide - MgO

**MATERIALS ON EARTH**

- Oxygen: 47%
- Silicon: 28%
- Aluminum: 8.1%
- Iron: 5.0%
- Calcium: 3.6%
- Sodium: 2.8%
- Potassium: 2.6%
- Magnesium: 2.1%
- Others: 0.8%

**SEAWATER**

- Chloride: 55.03%
- Sodium: 30.59%
- Sulfate: 7.68%
- Magnesium: 3.68%
- Calcium: 1.18%
- Potassium: 1.11%
- Bicarbonate: 0.41%
- Bromide: 0.19%
- Borate: 0.08%
- Strontium: 0.04%
- Fluoride: 0.003%
Historic use of MgO Cement

210 BC
Qin Shi Huangdi’s Terracotta Soldiers

220 BC
Great Wall of China
Methods of Desalination & MgO Procurement

100 million GPD seawater Desalination plant:

- 80 MGD Fresh Water
- 3000 TPD brine for NaOH, HCL & Chlorine
- 108 TPD Cement
- 10 MWH Green Power

MgO CEMENT

Benefits and Features of MgO Cement

Can be derived from **sea water**

Mixed with **organic materials**, no chemical effect

Can **encapsulate toxins** including heavy metals

Can be **carbon neutral**

MgO CEMENT EXAMPLES
MgO CEMENT
Portland Cement vs. MgO Cement

GHG emission
(metric ton CO2 eq)

Portland cement
MgO

1.02
0.10

WATER
MgO CEMENT

Buildings
Taipei 101, Currently the tallest building in the world. All 101 stories use MgO sheeting on the inside and outside of all the walls, fireproofing beams and as the subfloor sheathing.

Source George Swanson
MgO Sheeting is the “official” specified construction material of the 2008 World Olympics buildings. A project costing over 160 billion dollars. Over 8 million square feet of MgO Sheeting is installed. It is now estimated that over 2,000 companies are manufacturing MgO Sheeting worldwide.

Source George Swanson