

SolidCast Polymer Technology™

“Polymer Solutions for Life”

Solid-Cast-Polymer (SCP)

Solid-Cast-Polymer *is an advanced, polymer composite material-of-construction.*

Solid-Cast-Polymer Exhibits

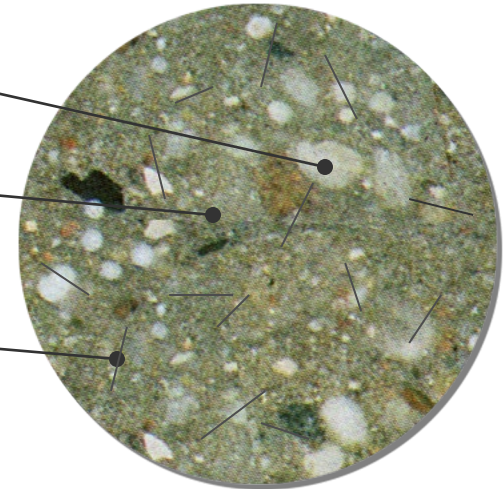
- Superior Physical Properties
- Corrosion Resistant
- Impermeable
- Rigid/Durable
- Lighter-Weight
- Reinforced
- Environmentally Responsible



Solid-Cast-Polymer Composition

Solid-Cast-Polymer products are made from:

- **Chemically inert mineral fillers**
- **Polymer resins**
(No VOC, No HAP, No Styrene)
- **Select Reinforcing Media**
(Recycled/Reclaimed)



Solid-Cast-Polymer does not contain Portland cement!

Physical Properties

Superior Physical Properties

- Compressive Strength: 15,000+ psi (ASTM C-596)
- Tensile Strength: 1,800+ psi (ASTM D-307)
- Flexural Strength: 4,200+ psi (ASTM C-580)
- Modulus of Rupture: 2,500+ psi (ASTM C-580)
- MOE: 3.5×10^6 psi (ASTM C-580)
- Water Absorption: 0.1%

(Based on average test data compiled)

Corrosion Resistance

300+ Year Life Expectancy

(ASTM C-580) - 3,000 Hr. Chemical Exposure Test



Corrosion Resistance

Solid-Cast-Polymer offers the highest degree of corrosion resistance in environments ranging from pH 1 to pH 14

LOS ANGELES COUNTY TEST

503 DAYS: 10% SULFURIC ACID and
5% SODIUM HYDROXIDE

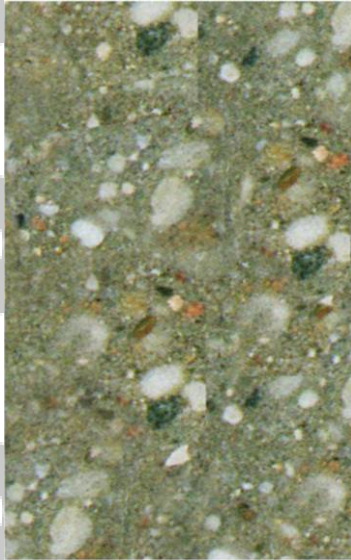
378 DAYS: HEAD SPACE OF DISTRICT SEWER

CITY OF LOS ANGELES GREEN BOOK TEST

20% SULFURIC ACID and
5% SODIUM HYDROXIDE

Corrosion Resistance

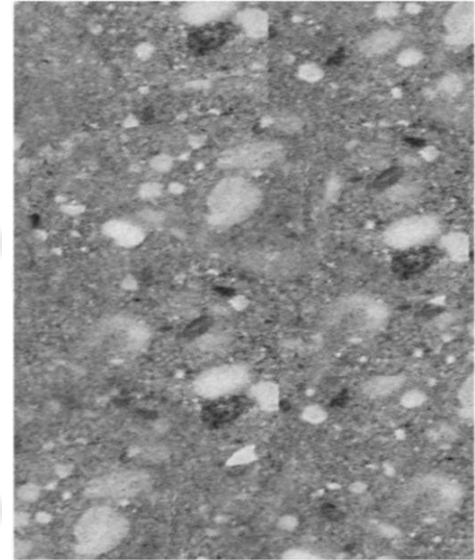
Solid-Cast-Polymer



**CORROSION
PROTECTION**

(100%)

Portland Cement Concrete w/liner



**CORROSION
PROTECTION**

(Less than 5%)

VS.

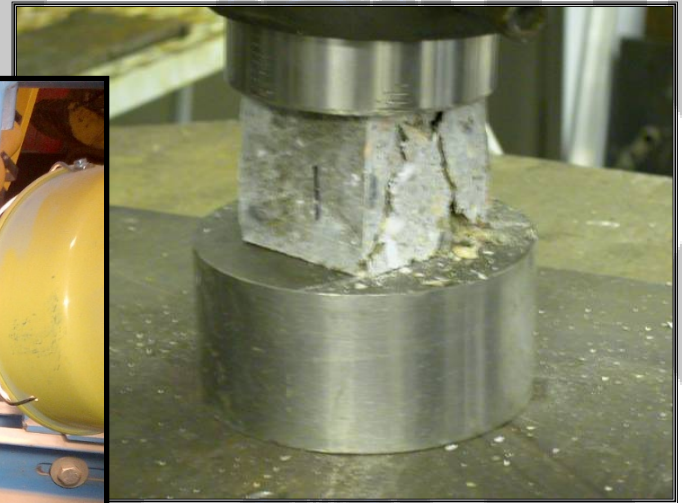
Impermeable

SCP is completely non-porous

- Eliminates ground water infiltration
- Eliminates sewage exfiltration
- Requires no special linings or coatings inside or out
- Requires no seams or welds
- *Encapsulates recycled fiberglass*

Rigid/Durable

- SCP structures (manholes & pipe) require no special bedding
- SCP structures are durable, ductile and resilient
- SCP always maintains its shape especially during installation



Reinforced

- Steel reinforcement facilitates thinner-walled structures



Solid-Cast-Polymer Applications

Methods of Construction

SCP Precast



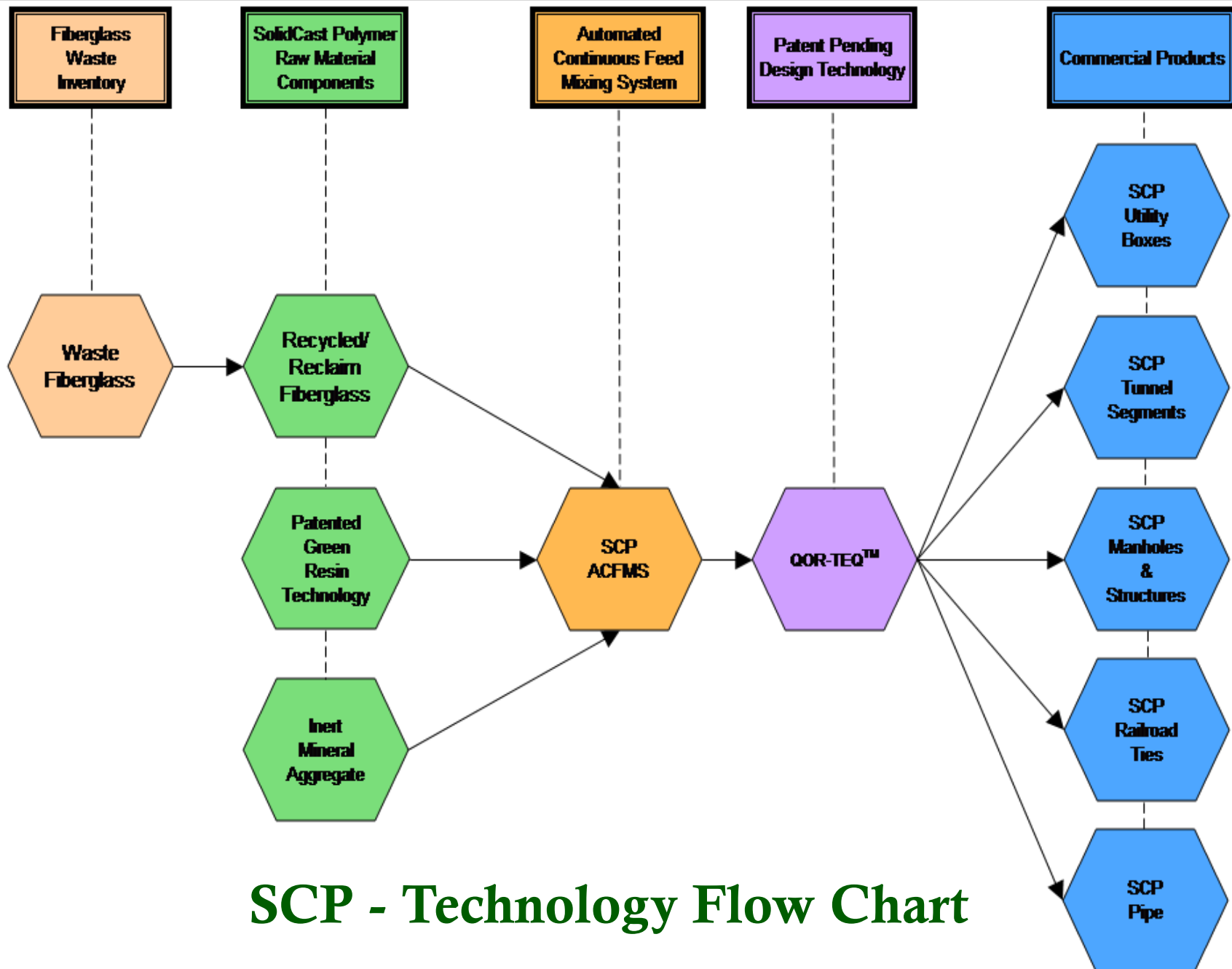
SCP Cast-In-Place



SCP Green Technology




SCP **Green** technology is the advancement of a cost-effective, non-hazardous, recycled, renewable material-of-construction



SCP - Technology Flow Chart

Solid-Cast-Polymer Technology

Key Components

- No VOC Resin Technology
- Recycled/Reusable Fiberglass
- ACFMS (Automated Continuous Feed Mixing System)
-  QOR-TEQ™

Solid-Cast-Polymer Technology

No VOC Resin Technology



Patented Environmentally Responsible Thermosetting Resins

- No solvents and is odor-free
- No shrinkage - 100% solids
- No Environmental Compliance Issues
- No VOC's or HAP's means no hazardous waste
- Faster cure time reduces installation time allowing greater output.
- ***NOVOC[®] resins are Non-Regulated Non-Flammable OSHA Class 3B.***



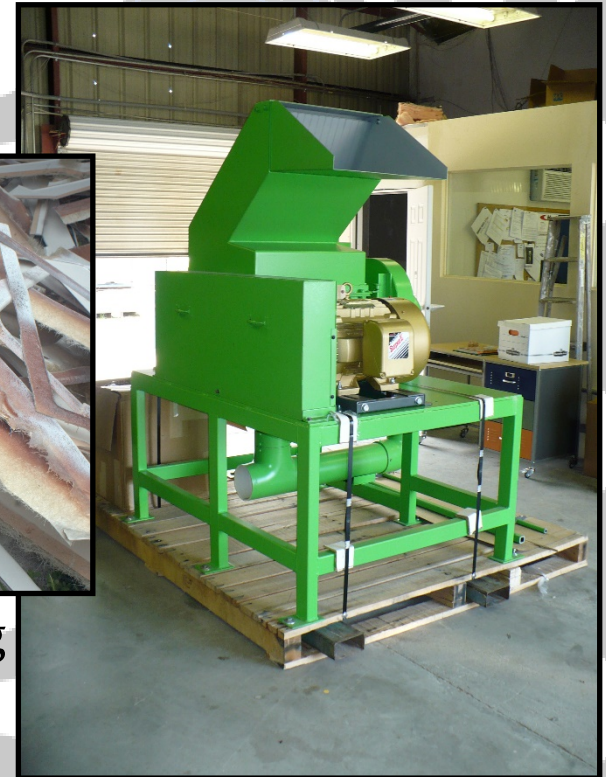
“Polymer Solutions for Life”

Solid-Cast-Polymer Technology

Recycled/Reusable Fiberglass

Reclamation Harvesting

- Reduces fiberglass hazardous waste
- Lowers SCP raw material costs



- Generates additional revenues by converting fiberglass waste into commercially proven Solid-Cast-Polymer products

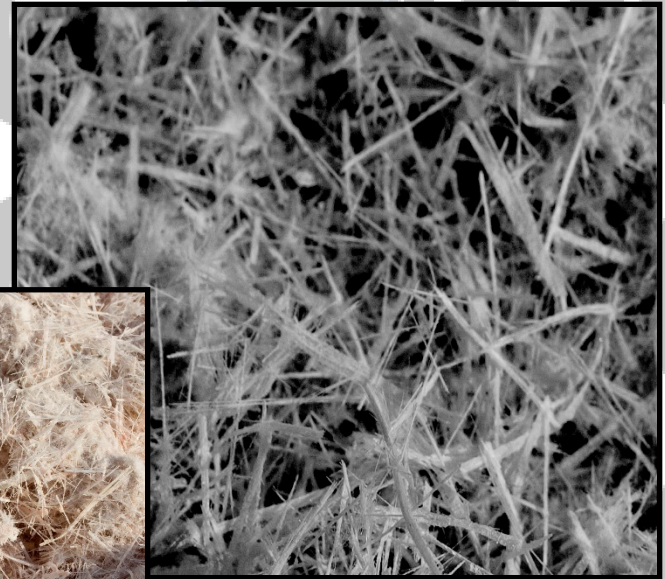
Solid-Cast-Polymer Technology

Recycled/Reusable Fiberglass

Reclamation Harvesting

- **Features & Benefits**

- Maintains the structural integrity of fiber
 - ¾” to 1” length fibers
- Reduces dust accumulation
- Allows for reincorporation of fiberglass



- **Value**

- Reduction in landfill costs & eliminates disposal fees
- Lowers SCP raw materials cost

Solid-Cast-Polymer Manufacturing

(ACFMS) Automated Continuous Feed Mixing System

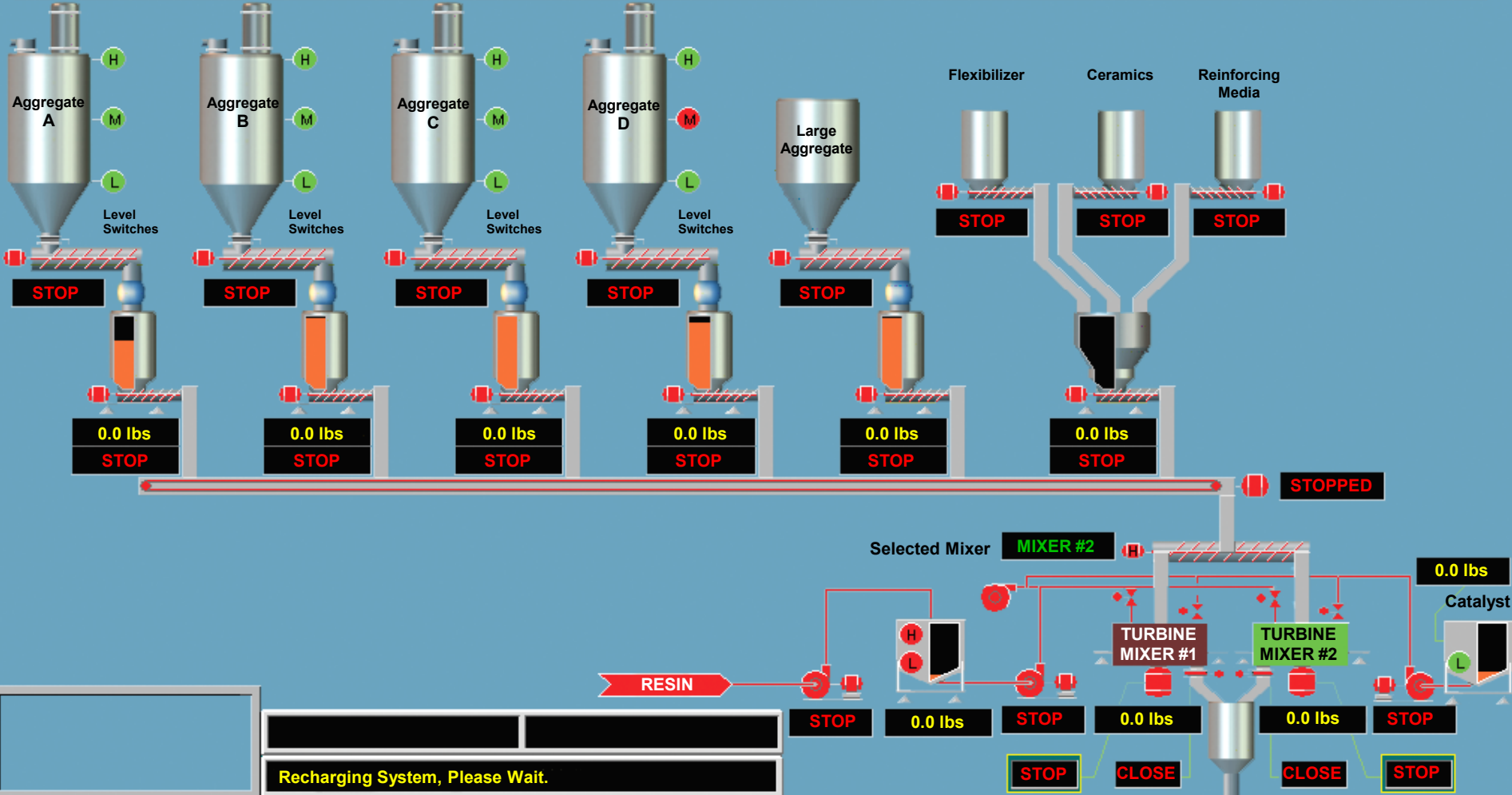
- Manufacturing process utilizes state-of-the-art ACFMS
 - Alternating Mixing Process
- ACFMS is a weight-based system designed to produce within 1.5% of accuracy
- ACFMS designed to produce 1,000+ lbs/min.
- Rapid cure system facilitates fewer molds
- Manufacturing plants require no permitting or reporting of hazardous materials



SCP Mixing System

Logged In User: **TECHNICIAN**

| | Aggregate A | Aggregate B | Aggregate C | Aggregate D | Large Aggregate | Flexibilizer | Ceramics | Reinforcing Media | Resin | Catalyst | TOTALS |
|---------------|-------------|-------------|-------------|-------------|-----------------|--------------|----------|-------------------|---------|----------|------------|
| ACTUAL | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs |
| TARGET | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 1000.0 lbs |
| OFFSET | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs | 0.0 lbs |



Recharging System, Please Wait.

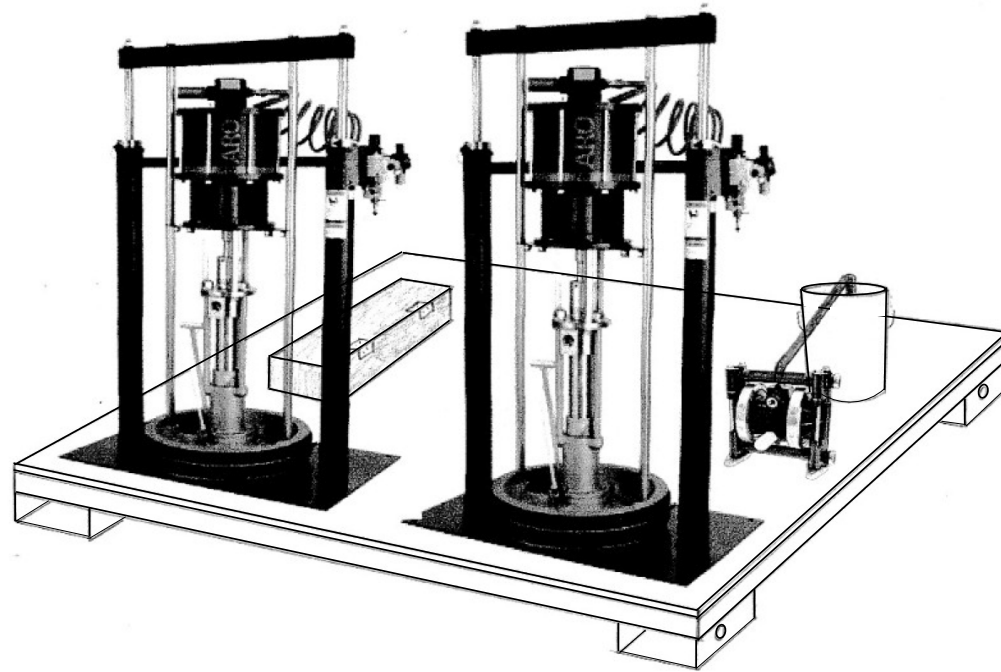
| | | | | | | | | |
|--------|------------------------|------------|-------|------------------|--------------|------------|-----------------|-------------------|
| Trends | Select MAN System Mode | PLC Status | LOGIN | Sequence Control | Recipe Name | PE_R3_0022 | Test recipe 1 | |
| | | | | | Batch Status | Idle | Last Completion | Normal Completion |

Clear Clear All

Solid-Cast-Polymer Manufacturing



CP Ultra Light Weight Castable
Pumping Station



“Polymer Solutions for Life”

Solid-Cast-Polymer Markets

Industries

- Chemical Processing
- Metals Refining
- Water & Wastewater
- Transportation
- Food & Beverage
- Semi-Conductor
- Electrical Utility



Solid-Cast-Polymer 30 Years of History



Chemical Processing - Trenches



“Polymer Solutions for Life”

Solid-Cast-Polymer 30 Years of History



Metals Refining – Electrolytic Cells

Solid-Cast-Polymer 30+ Years of History



Sanitary Sewer – Pipe & Manholes



“Polymer Solutions for Life”

Solid-Cast-Polymer 30 Years of History



Sanitary Sewer - Tunnel Segments

Solid-Cast-Polymer Life-Cycle Cost

| | MANHOLE COST | LABOR COST | INSTALLED COST | REPLACEMENT COST | OVERALL COST |
|--------------------------------|-----------------|----------------|-------------------|---------------------|-----------------|
| UNLINED CONCRETE | \$3,400 | \$1,500 | \$3,100 | \$6,500 | \$9,600 |
| LINED with T-LOCK | \$6,800 | \$1,500 | \$4,500 | \$6,500 | \$11,000 |
| Solid-Cast- Polymer | \$7,000 | \$1,200 | \$4,900 | \$0 | \$4,900 |

***INSTALL SOLID-CAST-POLYMER MANHOLES
AND YOU SAVE \$\$\$\$\$!***

*** Manhole Cst. (Based on 48" ID x 10'D Manhole)**



“Polymer Solutions for Life”

Solid-Cast-Polymer 30 Years of History



Transportation – Railroad Ties

Solid-Cast-Polymer Technology

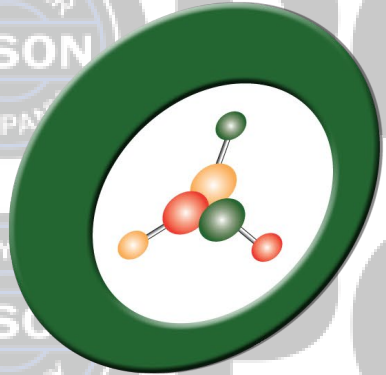
Total Value Proposition

- **Waste Recycling & Reclaiming**
 - Eliminates storage, landfill & transportation costs
 - Lower raw material costs
 - Recycling Revenues from other Fiberglass Producers
- **Diversify Product Line**
 - Commercially Proven SCP Systems
- **Patented Resin Technology**
 - Environmental Responsible Systems Engineering
- **Innovative & Patent Pending SCP Design Technology**
- **Automated Mass-Production Plant**
- **Superior Corrosion Resistance and Physical Properties**
- **30 Years of Experience & Proven Technology**

300+ Years “Peace of Mind”



“Polymer Solutions for Life”



SolidCast Polymer Technology™

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