

# EARTH FRIENDLY BLOCK™



# Introducing “EF Block”<sup>TM</sup>

- Introduction to EF Block Building Materials
- Overview of EF Block and the competition
- The EF Block System Proprietary (Patent Pending)
- Plant, Product and Processes of the EF Block system
- Homes Built with the EF Block
- Commercial Buildings with EF Block
- Owning a Plant and Green Opportunities



## Extraordinary Benefits...

- Built-in thermal insulative qualities equal to an R-40 insulated frame wall
- Hurricane resistant, 700% Stronger than a 2X6 frame with ½” shear wall
- Mold & mildew resistant
- Sound resistant, 53db sound absorption & 70stc rating
- Fire resistant, 4 hour fire rated to 2300 degrees
- Easy installation, will save significantly on construction time & labor
- Bug resistant: termites won't eat or nest in EF Block
- Truly green: made from 87% recycled post-consumer Styrofoam

# EF Block is Fire Resistant to 2300 Degrees



# EF Block Plant Tempe Az



# Full Molds Tempe Plant



# Recycled Styrofoam Ready to Grind



# Tempe Plant Silos & Grinder



# Tempe Block Ready to Ship



# EF Block Plant, La Paz, Mexico



# EF Block Plant, Kingman Az



# Introduction to EF Block

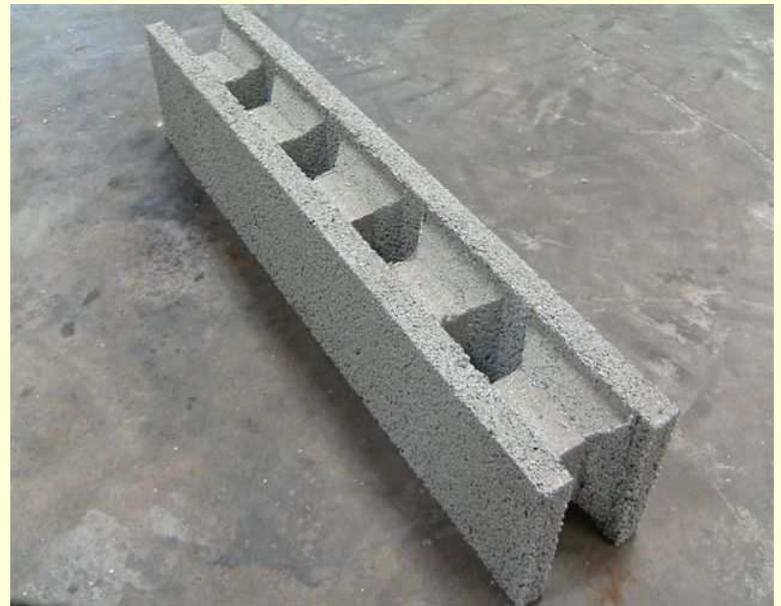
## A Truly Green Building Material

EF Block is manufactured from recycled post consumer and post industrial expanded polystyrene, which is then mixed with a binder. EF Block is 87% recycled material, which would otherwise end up in a landfill never to disintegrate. EF Block is a true “GREEN” building material.

EF Block is the building solution for economical, earth-friendly commercial and residential construction.

Our goal with the EF Block product is to develop, manufacture and build plants at millions less than similar concept's. While producing a single mold product from 24 years experience the inventor has brought the best block to the market for commercial, residential and institutional builders worldwide.

The EF Block concept has been used to build over 20,000 structures in the US and Mexico.



# Over View of the Block

- Perfect weight to volume ratio.
- Incredibly lightweight – five foot block can be handled by 1 person
- Expanded Patent Pending Fully Molded Design Block
- Increased durability – resistance to wind, earthquakes, etc.
- Ease of use - modifications on site simply executed
- Recyclable – no wood - Save 141 trees per 1,500 sq ft home
- No mold, pests, warping, mildew and fire resistant
- Reduced on-site construction time- no waste



# The EF Block Concept

## Specifications

**Uses:** EF Block's are used as permanent form work for structural concrete walls in buildings of any type of construction.

**Description:** EF Block's are hollow core forms comprised of a mixture of polystyrene beads, Portland Cement, admixtures and water; containing approximately 87% by volume of expanded polystyrene beads with a density of between 20 and 24 pcf. A Block has a compressive strength of  $\geq 56$  psi and a tensile strength of  $\geq 43$  psi. The expansion of a Block is the same as standard concrete (.0018 inch/ft.).

**Concrete fill:** Normal weight concrete with 3/8 inch maximum aggregate size and minimum compressive strength of 2500 psi at 28 days.

**Reinforcement:** Deformed steel reinforcement bars with a minimum yield stress of 40 ksi complying with ASTM A 615.

**Structural design:** Structural analysis and design of the concrete fill, steel reinforcement, and waterproofing is prepared in accordance with Building Codes.

# EF BLOCK BENIFITS

**Design, Construction & Efficiency-** During construction, EF Block's are dry stacked on top of each other without the need for mortared seams. The panels are easy to cut and shape to fit nearly any design. As the block's are stacked, steel rods (rebar) are inserted in grid-work fashion throughout the cores, and then the cores are filled with concrete. Curved walls, dimensional walls rounded corners, leaning walls and arched openings are now easy and economical. On-site changes can be carried out with a snap.

**Strength & Durability-**EF Block's structures are 700% stronger then 2' x 6' wood framed structures. Walls are designed to stand up to the challenges of severe climates including tornados, fires, hurricanes and earthquakes.

**Energy Efficiency-**EF Block buildings show on average a 40% improvement in heating loss. EF Block buildings have a tighter building envelope and a higher insulating value, leading to fewer drafts and a decrease in operating costs to maintain a comfortable interior environment.

**Maintenance-**EF Block buildings are dimensionally stable, offering lower maintenance costs. With no wood to rot, no insects, paint lasts longer and stucco cracks are practically eliminated. HVAC units turn on/off less often. Reduced maintenance costs contribute to a lower cost-of-ownership, a good feature when you sell.

# EF Block is made of 87% Recycled EPS



**ASU** ARIZONA STATE  
UNIVERSITY

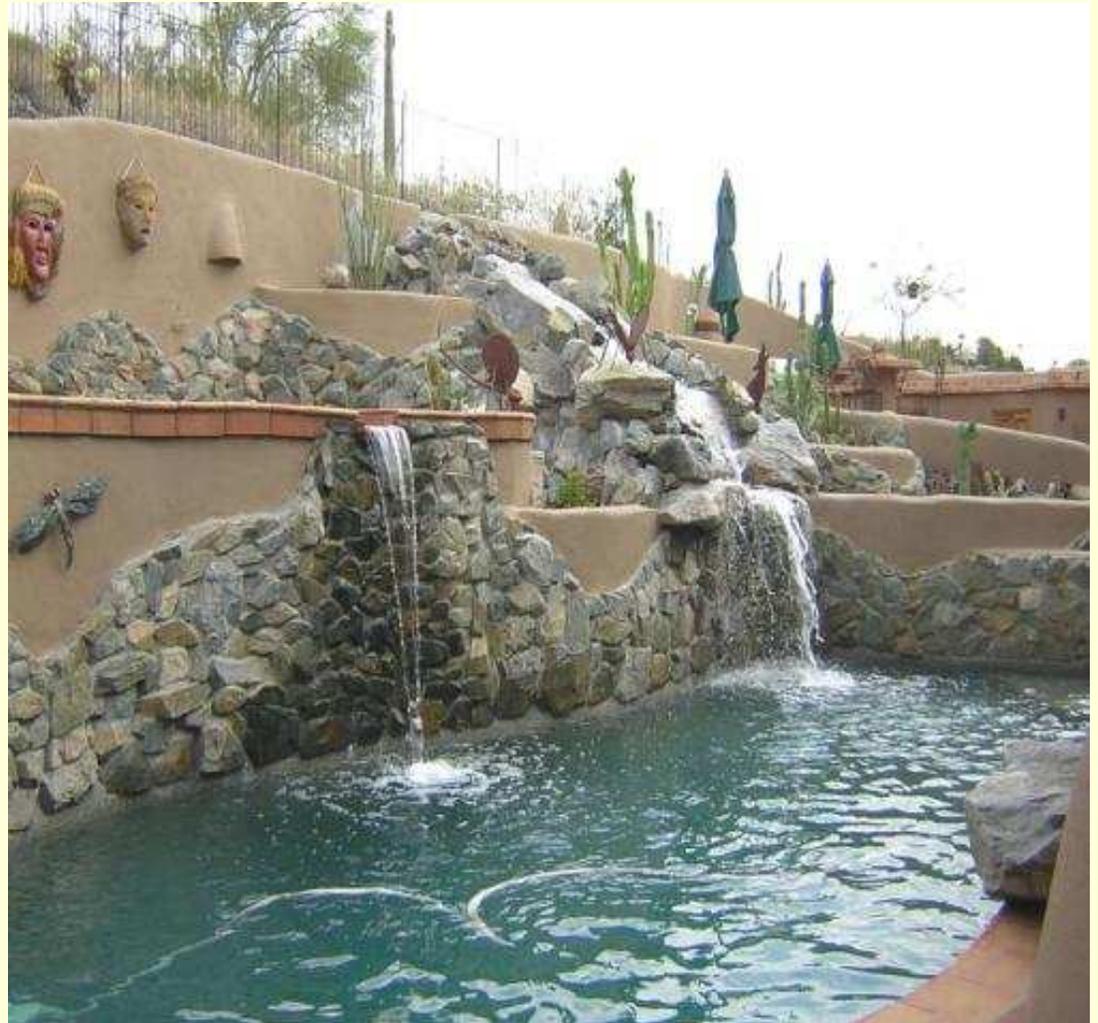


ARIZONA SCIENCE CENTER



# Build Green, Build Smart

- Environmentally Friendly
- Recyclable
- Quicker Build
- Efficient
- Mold Resistant
- Fire Retardant
- Termite Resistant
- Reduced Noise
- Tax Breaks
- Low Labor Costs
- Seismic Level 4 Approved



The EF Block is easier to install, and has better qualities than traditional wood framing . With ease of use in building and lower construction labor, Name brand corporations are accepting this **GREEN** Concept today.

## **McDonalds Tempe Az**



# EF Block Loading & Unloading



# EF BLOCK GOES UP THIS EASY!



**MEASURE IT**



**SCRIB IT**



**CUT IT**



**CHECK IT FOR PLUMB**



**GLUE IT**

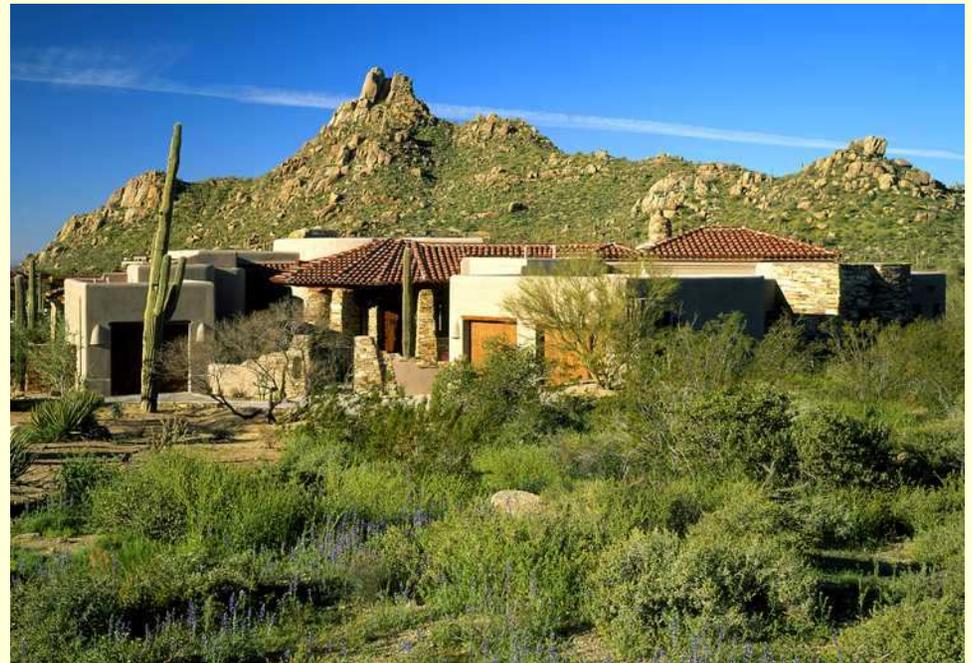


**GROUT IT**

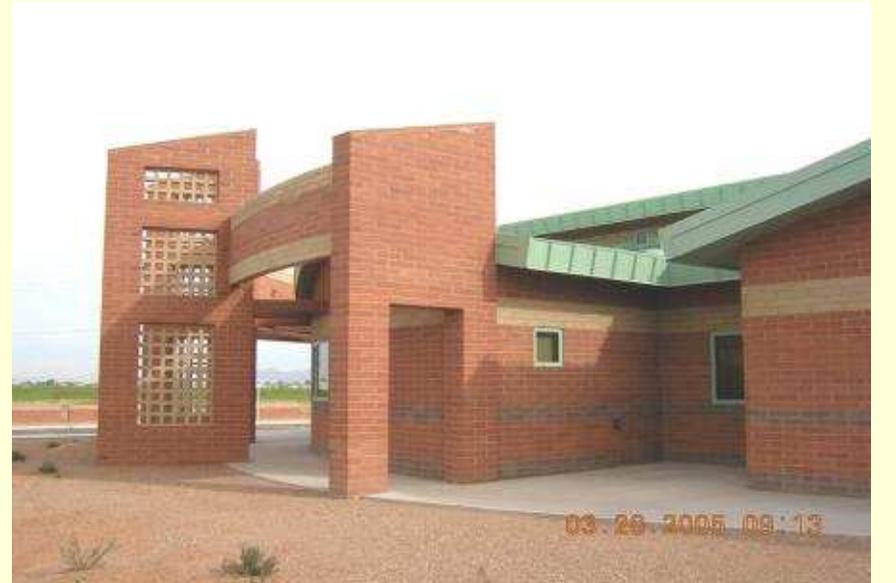
# UNDER CONSTRUCTION



**The EF Block has integrated environmentally responsible designs and construction principles into the custom building industry. Making it an ideal Global Green Building solution. We have over 300 custom designs for water falls, doors, panels, all shapes and sizes to customize any project.**



# COMMERCIAL PROJECTS



# RESIDENTIAL PROJECTS



# EF Block Endless Applications

## Residential



- Low Income
- Planned Communities
- Custom Cabins
- Fencing

## Industrial



- Warehouses
- Manufacturing Plants
- Distribution Centers
- Storage Sites

## Military



- Offices
- Barracks
- Storage
- Fencing

## Commercial



- Office Buildings
- Retail Buildings
- Apartments
- Condominiums

## Institutional



- Schools
- Libraries
- Churches
- Convention Centers

## Complete Kits



- Flex Lofts
- Flex Plex Multi-use
- Security Stations
- Guest Quarters

# **2014 STANDARD PURCHASE PLAN 110 MOLD EF BLOCK PLANT**

## **EQUIPMENT & LABOR INCLUDED:**

Plant includes 100 moulds, 10 end moulds, all manufacturing equipment necessary to produce 110 EF Blocks per shift. Shop manual, safety manual, plant set up, plant testing, and licensing agreement.

## **ADDITIONAL ITEMS PROVIDED BY PURCHASER:**

Plant sale does not include shipping fees, import or export fees, forklift, onsite utilities, and airfare and travel expenses to set up plant.

**Total**

**\$297,600.00**

## **Admix:**

Admix and Royalties \$2.00 per EF Block. Buyout on Royalties only after five years. The Admix cost will be continuous at \$1.00 per EF Block.

## **110 Mold Plant:**

110 molds=110 blocks per shift x 260 shifts= \$643,500.00 annually  
(Additional shifts can be added with use of Admix accelerators.)

## **Marketing:**

Earth Friendly Building Materials has participated in the Green Building industry for over 24 years. We have a detailed client data base that will only be available to EFBM affiliates. All referrals and sales leads that are brought in through our home office marketing will be forwarded to our affiliates in the appropriate territory. We are dedicated to assisting you in building your successful business.

## **Training and Support:**

Training and support will be provided for the following:

Researching and obtaining sources of the recycled material needed.

Complete installation, technical and structural support and consultation by our experienced professionals.

Additional income opportunities that come with owning an EF Block plant are, you will have the first chance on bidding the install as well as the complete construction of the jobs.

# 2014 ALTERNATIVE PURCHASE PLAN

## 27 MOLD EF BLOCK PLANT

### EQUIPMENT & LABOR INCLUDED:

Plant includes 27 moulds, 2 end moulds, all manufacturing equipment necessary to produce 27 EF Blocks per shift. Shop manual, safety manual, plant set up, plant testing, and licensing agreement.

Plant Cost/Setup total	\$207,000.00*
Plant Down Payment	\$127,000.00
Total of 5 year installment plan	<u>\$80,000.00*</u>
	\$207,000.00

## **ADDITIONAL ITEMS PROVIDED BY PURCHASER**

Plant sale does not include shipping fees, import or export fees, forklift, onsite utilities, and airfare and travel expenses to set up plant.

### **Alternative Purchase Plan:**

The Alternative Purchase Plan allows you to establish a market in your region and grow your business as your market grows. This basic plant can make 27 EF Blocks per shift. As your business increases your production can increase by purchasing additional molds.

## For example:

27 molds= 27 blocks per shift x 260 shifts= \$157,950.00 annually

55 molds= 55 blocks per shift x 260 shifts= \$321,750.00 annually

110 molds=110 blocks per shift x 260 shifts= \$643,500.00 annually

(Additional shifts can be added with use of Admix accelerators.)

The starting 27 mold plant can be purchased for an initial investment of \$177,000.00. An additional \$80,000.00 will be paid over 5 years. (The installment plan will have a 0.01% interest rate. See next paragraph for details on **Monthly Installments.**) Each additional EF Block standard mold costs \$1,200.00, and each additional EF Block end mold costs \$1,000.00.

## **Monthly Installments:**

Monthly installments are \$1,346.00 for 60 months. Royalties and Admix are \$2.00 per EF Block produced for the first five years. With a buyout on Royalties after five years, Admix continuous. All Royalties and Admix monies are to be paid to EFBM

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Options for interior and exterior wall claddings detailed by our experts.

Displays and marketing products available for Green Building exposure, industry events and home shows

Sales services and consultations will be available 5 days a week

8 hrs per day



**THANK YOU**

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