

## **MR-MANUFACTURER**

STRUCTOCORE® Security Wall Systems are manufactured by United States Gypsum Company, a leader in construction materials and building systems for 90 years.

For specifications on this product, 1.) close this product Snapshot, 2.) click on the Manufacturer's Showcase button, 3.) select the screen, *Specification: Security Wall Systems* from the drop-down Showcase list that appears in the upper right of your screen.

## **PP-PRODUCT PRESENTATION**

STRUCTOCORE Security Wall Systems consist of specially formed steel sheets that provide continuous reinforcement for monolithic, high strength, fire-resistant plaster finish applications. STRUCTOCORE Security Wall systems are ideal for use in lieu of reinforced concrete or concrete block. Tests show that they are capable of ultimate load for fixture support up to 4850 lbs. (loads applied to a beam/plate assembly mounted on the wall, at a point 18" from the wall surface). Load capacity includes fixtures such as beds and sinks supported from one or both sides of a wall. These thin, high-strength walls accommodate electrical conduit and plumbing pipes.

### **Features**

**Lightweight** -- A 3-1/2" thick partition weighs approximately 35 psf, considerably less than current accepted materials. Ideal for retrofit applications.

**Space Saving Construction** -- Partition thicknesses of only 3-1/2" to 4-1/2" provide more usable floor space than with concrete systems -- over 50% more space with some designs.

**Smooth Monolithic Wall Surfaces** -- Gypsum plaster finished walls provide superior appearance and are easy to clean. Painting requirements and costs are reduced considerably.

**Economical** -- Faster installation than more costly, thicker and heavier concrete or fully grouted masonry construction. Freestanding steel core can be welded in place, attached by screws, or integrated with other approved framing components or systems. Simplifies electrical and mechanical installation. In-place costs are competitive with costs for reinforced and filled concrete block walls.

**High Strength** -- Continuous reinforced-steel core offers a penetration and outbreak barrier providing various levels of security. If the plaster matrix is attacked, STRUCTOCORE Sheets maintain their integrity for continued security. Acceptable for Zone 4 seismic applications.

**Versatility** -- STRUCTOCORE Sheets are available in various sizes. Sheets can be overlapped and welded or screwed together forming a continuous steel grid to fit needed room size. This minimizes scrap. Wall thicknesses can be adapted readily to meet design needs.

**Easy Maintenance** -- Gypsum plaster finished walls require little upkeep. Damaged areas are easy to repair and maintain. Maintenance can be performed with readily available materials.

## **UA-USES, APPLICATIONS**

An economical, fast way to construct security walls, STRUCTOCORE Security Wall Systems are designed for:

- \* Security walls in jails, prisons, and correctional centers.
- \* Walls for vaults and counter areas at banking facilities and currency exchanges.
- \* Special storage rooms at retailers such as furriers and jewelers that store large, valuable items.
- \* Secured storage areas for items such as computer data records and financial records.
- \* Secured storage areas in residential homes.

### **AI-ASSEMBLY, INSTALLATION**

The system is constructed from STRUCTOCORE Steel Sheets, spray-applied STRUCTO-BASE® Gypsum Basecoat Plaster (Machine Application), and finished with IMPERIAL® Finish Plaster. STRUCTOCORE Steel Forming is available in 12-, 14-, 16-, and 18-ga. galvanized steel mesh sheets. When sheets overlap they interlock, producing a reinforced intersection permitting fast, simple installation. STRUCTOCORE Sheets are welded or screwed to 18-ga. continuous steel angles that are securely anchored to floor and ceiling. High-strength STRUCTO-BASE Gypsum Basecoat Plaster (Machine Application) is sprayed to both sides of sheets to a minimum 3-1/2" thickness. IMPERIAL Finish Plaster (nominal 3000-psi compressive strength) is hand troweled over basecoat producing a hard, durable, smooth or textured finish at low cost. Systems with recommended enamel or epoxy paint finishes have withstood water erosion hose stream testing for one hour without water penetration.

### **MF-MATERIALS, FINISHES**

Materials for STRUCTOCORE Security Wall Systems include STRUCTOCORE Steel Sheets, STRUCTO-BASE Gypsum Basecoat Plaster and IMPERIAL Finish Plaster.

### **CS-COATINGS, SURFACING**

STRUCTOCORE Security Wall Systems are made of steel, spray-coated on both sides with STRUCTO-BASE Gypsum Basecoat Plaster (Machine Application) and hand troweled with IMPERIAL Finish Plaster.

### **TS-TECHNICAL SUPPORT**

For further information on specifications, design criteria and product performance, order catalog *SA-1119 STRUCTOCORE Security Wall Systems* by calling toll-free 1-800-USG-4YOU (874-4968). Architectural details are available in printed paste-up hard copy form or in AutoCAD Release 10 or DXF Format diskette form (3-1/2" 720K disks). Call toll-free to order.

### **CC-CODES, CERTIFICATION**

The following standards apply:

- \* ASTM A526 -- steel sheet, commercial quality hot-dipped galvanized (min. G-60), min. 33 ksi yield strength.
- \* AWS -- Code for Welding in Building Construction, D1.0.
- \* ANSI Z49-1 -- 1973 Safety in Welding and Cutting.
- \* ASTM C28 -- 2800 psi plaster standard.

**OM-OPERATION, MAINTENANCE**

Contact local U.S. Gypsum Company Sales Office with any questions about maintenance and replacement recommendations.