

### ACOUSTISORBER Space Units ... simple, low-cost, suspended sound absorbers that arrest plant noise build-up

High industrial noise levels are a problem largely due to the build-up of reverberant sound energy resulting from a lack of adequate sound-absorptive surfaces. Newly developed to meet this widespread need are ACOUSTISORBER Space Units. Metal-framed and plastic film-encased, these mineral fiber pads are suspended overhead to effectively control such noise. Each unit, 1-in. thick and measuring 20"x24", is simply installed on prehung parallel wires in a spacing pattern determined from the calculated noise reduction.

Since ACOUSTISORBER Space Units absorb sound on *both sides*, their Sound Absorption Coefficient is an exceptional 1.5 sabins per sq. ft. of unit, compared with .04 for steel roof deck, .07 for painted concrete block walls or wood floors, and .02 for concrete floors (values at 1000 Hz). As a bonus, the high reflectivity of the white PVC plastic film helps to boost brightness levels in dimly-lit areas. The spacing pattern should be as balanced as possible, but is not critical and an irregular pattern does not compromise the units' efficiency. Overhead fixtures and utilities need not be moved, for ACOUSTISORBER Units can be hung around them.

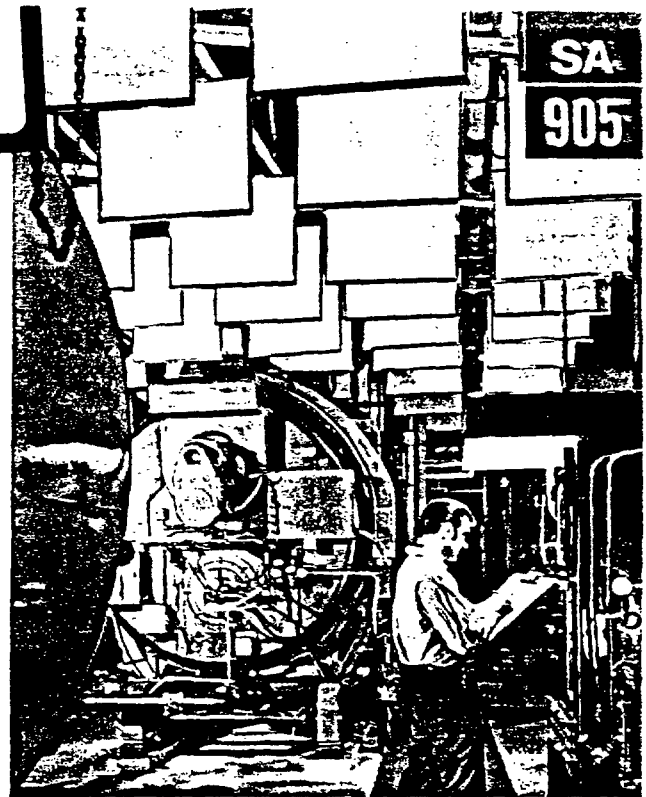
**Fire Resistance**—ACOUSTISORBER Space Units are noncombustible. Fire hazard classification (ASTM E84 test procedure): flame spread 0, fuel contributed 15, smoke developed .

**Sound Rating**—As tested by Riverbank Acoustical Laboratories (test no. A-72-90) ACOUSTISORBER Space Units 1 ft. apart in rows 3 ft. o.c. showed sound absorption characteristics as follows:

| frequency (Hz)                       | 125 | 250 | 500 | 1000 | 2000 | 4000 |
|--------------------------------------|-----|-----|-----|------|------|------|
| absorption (sabins per 20"x24" unit) | 0.7 | 1.7 | 3.2 | 5.0  | 5.3  | 3.9  |

For complete data on absorption and procedures for calculating the number of units required, see U.S.G. Folder SC-811.

**Limitations**—ACOUSTISORBER Units (1) reduce only reverberant sound energy; sound direct from source to listener is unaffected; (2) are effective as sole treatment only for sound level reductions of approximately 7 db or less, thus are recommended for reductions greater than 7 db only in combination with other forms of acoustical treatment, most effectively at the source; (3) must be located to not interfere with fire-protection sprinkler operation; (4) are not recommended for use in areas where temperatures exceed 150°F.



Easily-installed ACOUSTISORBER Space Units help keep irritating, damaging noise levels down, personnel comfort and morale up.

### Non-Acoustical Ceiling Materials ... for specialized applications

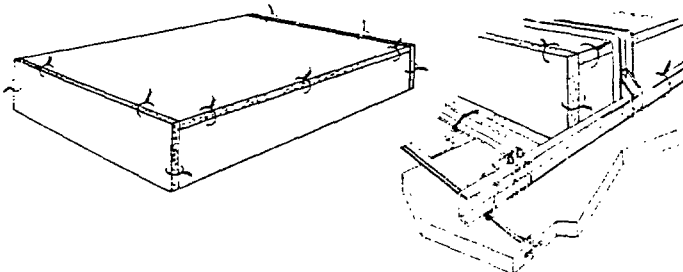
**USG Asbestos Board**,  $\frac{3}{16}$ " thick in nom. 24"x24' and 24"x48" sizes, is supplied either Perforated or Unperforated, for lay-in use in ceiling grid systems. Square-edged or beveled ( $\frac{1}{16}$ " bevel on all four sides). Perforations, .197" dia., are spaced  $\frac{1}{2}$ " o.c. White Rippletone texture finish. For other data, see table on page 4.

Other tile bases, where a noncombustible base for adhesive application of ceiling tile is required, include SHEETROCK and SHEETROCK FIRECODE gypsum panels, and ROCKLATH plaster base. See U.S.G. Folders SA-917, SA-927.

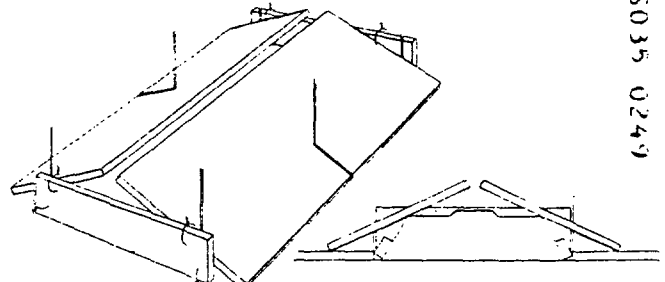
**THERMAFIBER Light Fixture Protection** brings packaged convenience to jobs using U.S.G. ceiling systems, whether panel or tile. This consists of  $\frac{1}{4}$ " thick semi-rigid mineral wool board wire-tied and suspended over fixtures. The assemblies (illustrated below) carry UL Labels covering board module ceiling designs of 1,  $1\frac{1}{2}$ , 2, 3 and 4 hours for which ratings have been established. They are adaptable to acoustical tile and panel ceiling constructions using either an exposed grid or concealed Z-spline suspension.

The THERMAFIBER package is shipped in one module for acoustical ceiling panels, and in three where tile is used.

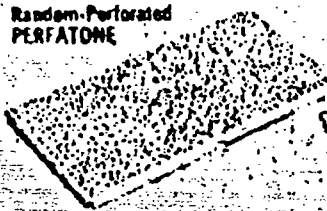
box assembly with concealed Z-spline suspension



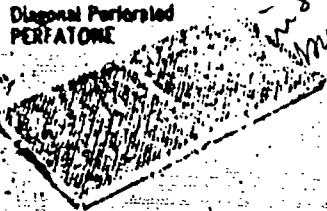
tent assembly with exposed grid



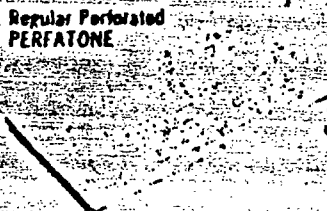
Random-Perforated  
PERFATONE



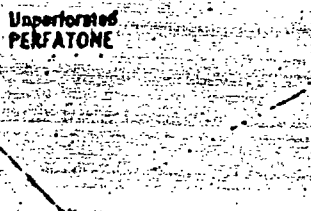
Diagonal-Perforated  
PERFATONE



Regular-Perforated  
PERFATONE



Unperforated  
PERFATONE



as border tile or for decorative effects. For other characteristics, see table on page 2.

#### function

**Fire Protection**—Use of Fire-rated PERFATONE systems eliminates need for contact fireproofing and for intermediate ceiling fire barriers in many installations; Conventional PERFATONE system rated Incombustible by AMA.

**Sound Ratings**—Excellent absorption and attenuation; see tables, pages 4 and 5.

**Maintenance**—Provides quick access to any plenum area; easily maintained and highly washable.

**Decoration**—Has 72% light reflectance in white; can be painted in decorator colors with high-grade metallic paint without impairing acoustical properties, if care is taken not to fill perforations.

#### limitations

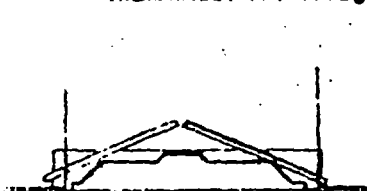
In areas of high humidity or where moisture might impinge against the acoustical surface, Aluminum PERFATONE Acoustical Units with galvanized fittings should be used, or a different architectural design should be considered.

**Ratings, erection and specification of the PERFATONE system** are covered in USG Folder b-1575.

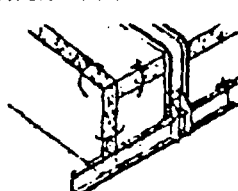
**PERFATONE Accessories**, in addition to pans and mineral fiber pads, include more than 50 elements which make up the various systems available—broadest in the industry. A single specification assures the use of parts made to fit and function together—the runners, wire grids, straps, clips, clamps, spacers, wall moulding, angles, channels, grid pad supports.

**THERMAFIBER Rated Light Fixture Protection** brings packaged convenience to jobs using USG ceiling systems, whether panel or tile. This consists of 1 1/4" thick semi-rigid mineral wool board wire-tied and suspended over fixtures. The assembly (illustrated, below) carries U/L Labels covering board module ceiling designs of 1, 1 1/2, 2 and 3 hours for which ratings have been established. It is adaptable to acoustical tile

THERMAFIBER® Insulation Light Fixture Protection



with exposed grid



with concealed Z-spline suspension

and panel ceiling constructions using either an exposed grid or concealed Z-spline suspension.

The THERMAFIBER package is shipped in modules for two constructions using acoustical ceiling board, and one when tile is used.

## 5. USG Ceiling Boards

### description

Three ceiling board products are available from U.S.G. for specialized applications.

—**SHEETROCK® Ceiling Board**, non-acoustical, for lay-in use in ceiling grid systems. Available in nom. 24"x24" and 24"x48" sizes, special sag-resistant gypsum core with either (a) unpainted plain manila face paper, or (b) painted white. Three thicknesses available: 1/2", 5/8", 3/4".

—**USG Asbestos Board**, 3/8" thick in nom. 24"x24" and 24"x48" sizes, supplied either Perforated or Unperforated for lay-in use in ceiling grid systems. Square-edged or beveled (1/4" bevel on all four sides). Perforations, 0.19" dia., are spaced 1/2" o.c. White-Rippletone texture finish.

—**Z-Board**, a special type 1/2"x2"x8" gypsum board used where an incombustible base for adhesive application of ceiling tile is required. Nailed to wood members; alternate bases for same application are BAXBORD® and BAXBORD FIRECODE gypsum backing board, SHEETROCK and SHEETROCK FIRECODE gypsum wallboard, ROCKLATH® plaster base. Screwed or nailed to metal channels; alternate bases for same application are BAXBORD and BAXBORD FIRECODE gypsum backing board, SHEETROCK FIRECODE gypsum wallboard.

For other characteristics, see table on Page 2.

## 6. USG Metal Accessories for Ceilings

### description

United States Gypsum markets precision-made metal accessories which contribute to assured performance when in three Z-spline suspension systems are specified:

- Concealed Z-Spline
- Concealed Accessible
- Exposed Z-Spline

U.S.G. also supplies complete accessories for four other systems, described in preceding sections of this catalog. These are the AIRSON® Air Distribution System, M-F-P® Exposed Grid System, PERFATONE Metal Pan System, and AURAULT® Lighting-Acoustical System. Ratings, erection and specification of all seven assemblies are covered in pertinent USG Systems Folders. For the three spline systems, the accessories are supplied in five groups as follows:

**Basic Grid Parts**—1 1/4" and 3/4" 16 ga. cold rolled channels, 16' and 20' lengths; electro-galv. spring spacers, 18 ga. 16' clips, 10 and 11 ga. galv. clips.

16' and 20' lengths; electro-galv. spring spacer, 18 ga. 16' clips, 10 and 11 ga. galv. clips.

**Concealed Z-Spline Parts** (all 26 ga.)—3/4" and 1 1/4" Z-splines, 10' lengths, and splices; 1 1/4" finish channels, 10' lengths, and splices; No. 90 clips, corner plates, touch lacquer.

**Exposed Z-Spline Parts**—26-ga. 1 1/4" Z-splines, 10' lengths and splices; tee and angle splines.

**Concealed Accessible Parts**—Angle splines, 2 1/2" and 3" lengths.

**12"x12" Access Tile Parts**—Split angles (R or L) and L-splines.