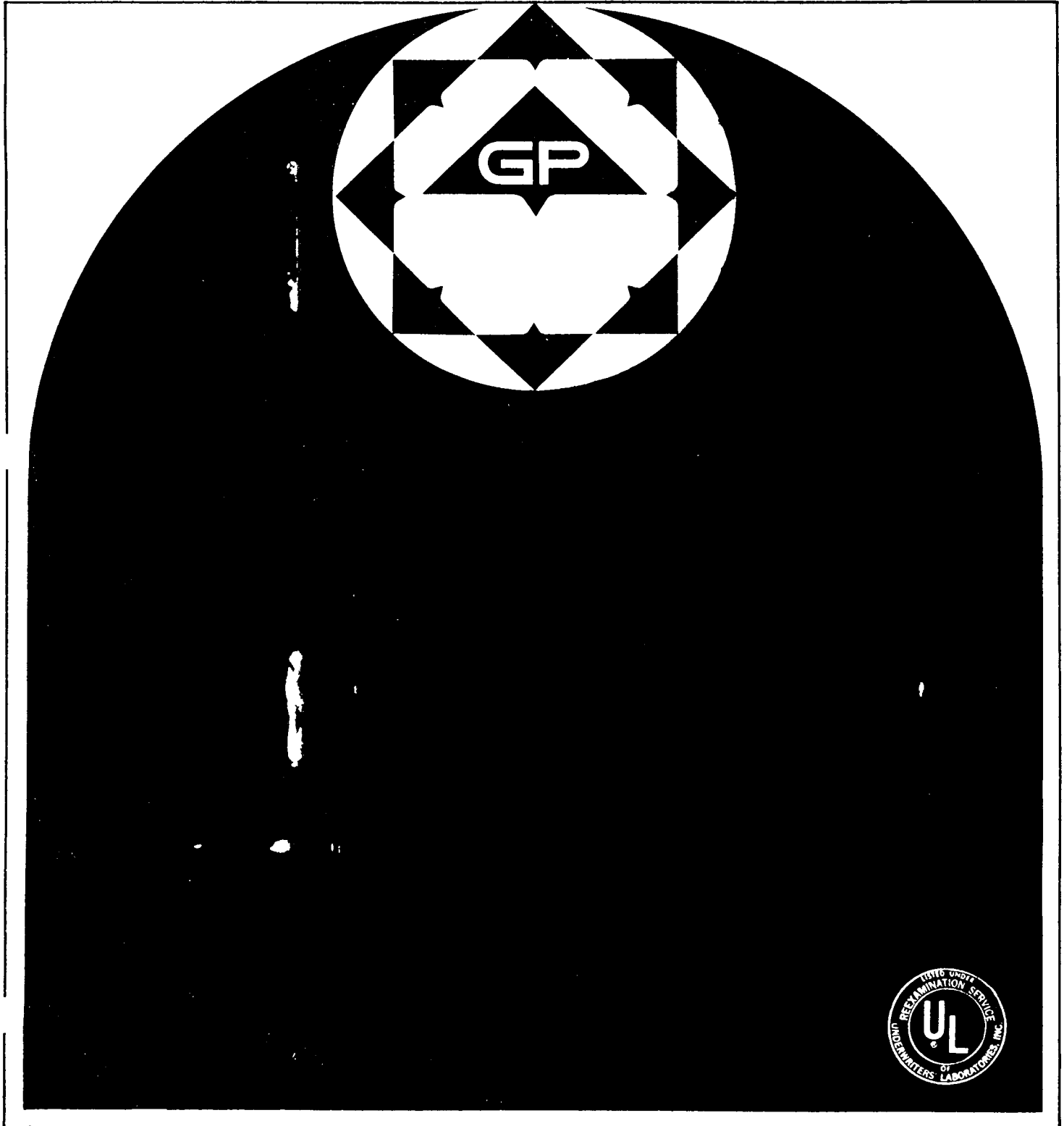


PLAINTIFF'S EXHIBIT

GP-1074

COMPLETE CEILING AND HEATING SYSTEM IN ONE INSTALLATION **RADIANT HEAT PANEL**

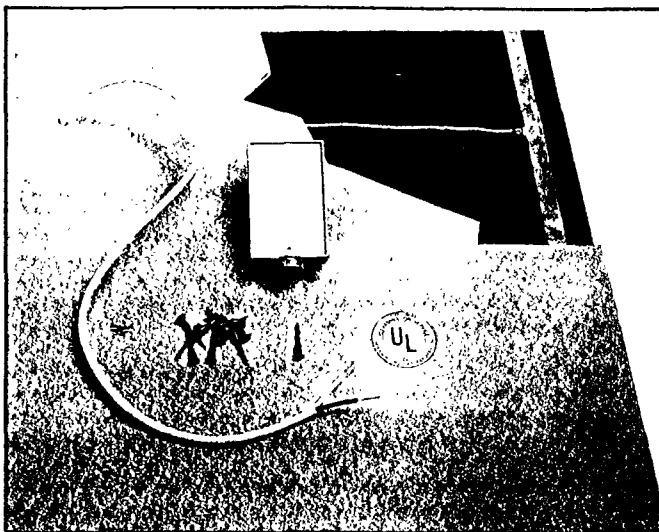




RADIANT HEAT PANEL

A new system that provides a complete ceiling and a uniform, low temperature, electrical radiant heating system in one installation.

- Underwriters Laboratories listed.
- NEW conductive Tensheet® provides a uniform and consistent heat source.
- Only one layer to install.
- Factory laminated construction, provides a strong, rugged panel.
- Easily field cut to length. . . . The 4' wide half-conductive panel with a 2' wide heating surface is easily field cut to width or length.
- Lighting fixtures may be readily installed.



DESCRIPTION

The basic panel consists of the conductive Tensheet between two layers of special gypsum wallboard. The conductive Tensheet is the heating element. The face layer of wallboard is 1/4" thick and the back layer is 3/8" thick. The electric current is supplied through two copper electrodes which run the full length of the panel. A lead wire (pigtail) is attached to each copper electrode and runs through the back side of the panel. The pigtail (at least 12') is coiled onto the back of the panel ready for connection to the elec-

*Registered U. S. Trademark of Armstrong Cork Company.

trical supply and thermostat. Georgia-Pacific insulated nails and thermostats are available as part of the package.

TECHNICAL DATA

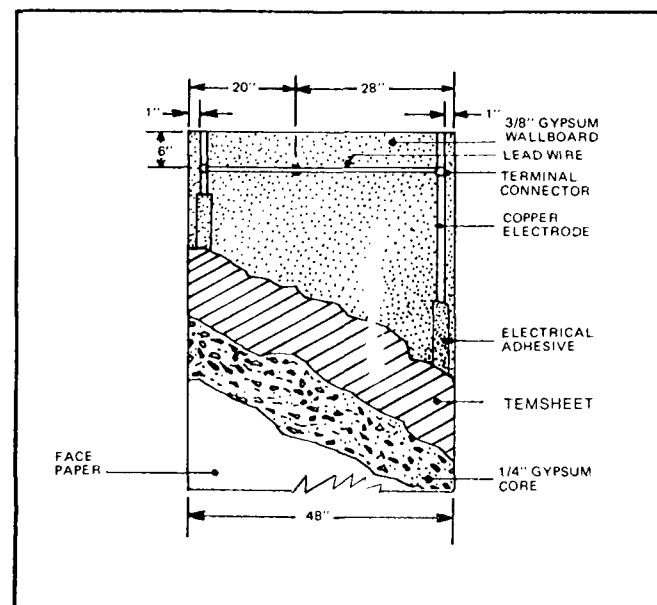
Thickness—5/8" (1/4" and 3/8" laminated).

Sizes—4'x6', 4'x8', 4'x10', 4'x12'—available in both the full-conductive and half-conductive panels.

Heat Output—Produces 15 watts or 51 B.T.U.'s of heat per square foot at 240 volt.

Standards—Underwriters' Laboratories listed under Cat. No. P4-240-60 and P2-240-30. Conforms to the requirements of the National Electrical Code.

Offers *flexibility* not previously available in this type of heating system . . . easier installation, less waste and lower installed cost.



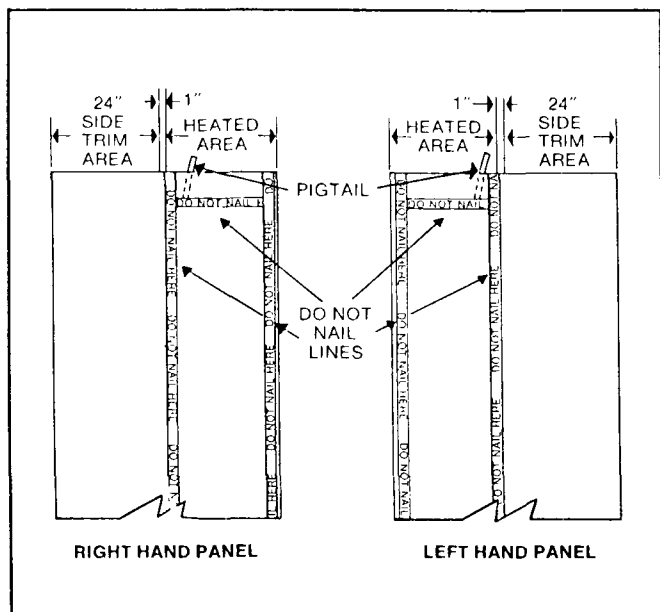
Full-Conductive Panel (P4-240-60)

Easily field cut to length. The full 4' wide conductive panel is for use in the main, standard dimension, room ceiling areas.

Half-Conductive Panel (P2-240-30)

Easily field cut to width and length. The half-conduc-

SGP 0026027



tive panel is for use in hallways or odd dimension rooms. This is available in a "Right Hand" and "Left Hand" panel.

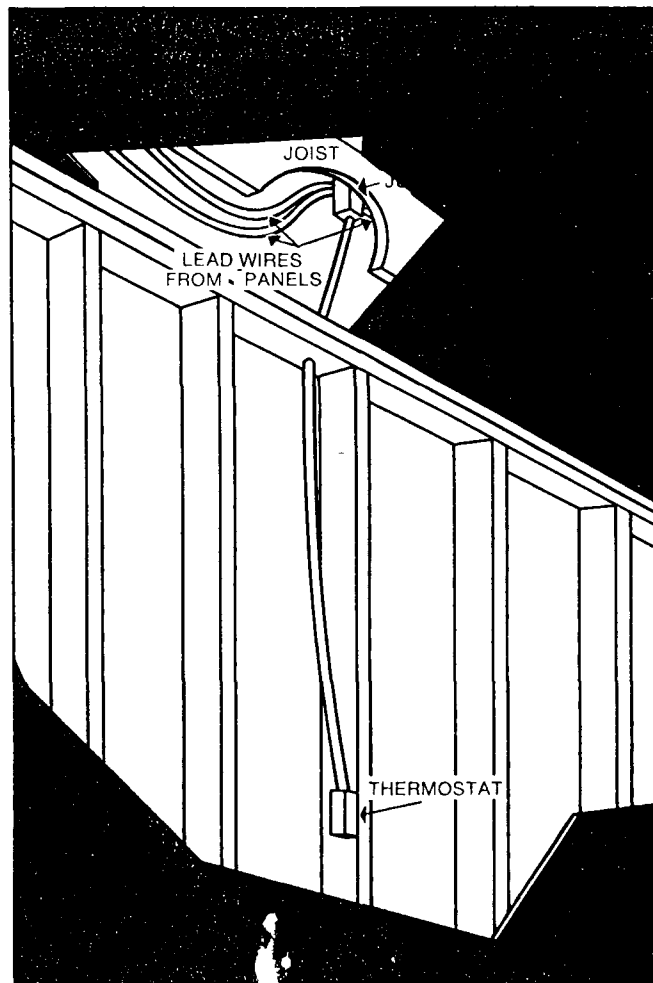
FINISHING THE RADIANT CEILING

The electrical current to the ceiling panels should be turned off one hour prior to applying joint treatment products. Use conventional drywall taping and finishing methods. **Do not turn on electric current until the joint treatment is thoroughly dry.** Embed G-P wallboard tape with G-P Triple Duty or Ready Mix Compound. Apply two finishing coats of Triple Duty or Ready Mix Compound. The electrical current should be turned off one hour prior to painting and remain off until surface is thoroughly dry. Use of a high quality primer/sealer is recommended. A high quality interior finish paint is recommended for the final decorating.

PRECAUTIONS

1. Make only one cutout for light fixtures in an 8' panel and only two cutouts in larger panels. Space cutouts at least 6" from panel ends and edges.
2. Trim panels with a hand or reciprocating saw.
3. Attach panels only to wood framing or furring with G-P insulated nails.
4. Do not nail into the "no nail" line marked over the

TYPICAL RADIANT HEATING CEILING INSTALLATION



copper electrodes 1" from the edges and over the pigtail leads 6" from one end.

5. Do not use any tile or acoustical finishes on the panels.
6. Do not exceed maximum frame spacing of 24" o.c.
7. Do not use radiant heat panel cutoff pieces as filler board.
8. Do not operate panels until joint treatment is thoroughly dry. The use of panel heat to accelerate drying of the joint treatment may result in cracked joints.
9. Do not install G-P radiant heat panels in closets, over walls or partitions that extend to the ceiling, or over wall hung cabinets.

SPECIFICATIONS

SCOPE

These specifications cover the installation of G-P radiant heat panels. References concerning the panels should also be made in the electrical, insulation, roofing, walls and ceiling sections.

PLANNING

Some preliminary work will result in the most satisfactory performance of the G-P radiant heat panels. The structure should be well insulated. It is recommended that there be at least 6 inches of mineral insulation in the ceilings, 3 inches in the outside walls and 2 inches under the floors. The heat losses for each room and the entire structure should be calculated in accordance with methods recommended in the ASHRAE handbook.

GENERAL CONDITIONS

The framing and electrical installation shall meet the minimum requirements of FHA, National Electrical Code, and the local building codes.

The panels shall be installed by a G.P. licensed contractor (usually drywall). He will furnish all materials and labor and be responsible for the complete installation. The calculation of the heat loss and the planning of the panel installation shall also be the contractor's responsibility.

All panels and accessory products shall be delivered to the job in good condition. If necessary, heat or ventilation or both shall be provided to maintain a temperature of not less than 40° F and to prevent excessive dampness.

The installation of G-P radiant heat panels and auxiliary products shall be in conformance with the printed instructions prepared by Georgia-Pacific Corporation.

MATERIALS

1. **G-P Full-Conductive Panel (P4-240-60)**
5/8" thick, 4' wide and in 6', 8', 10' and 12' lengths.*
2. **G-P Half-Conductive Panel (P2-240-30)**
5/8" thick, 4' wide and in 8', 10' and 12' lengths.*
3. **Insulated Nails**
1 1/2" with red plastic shields.
4. **Filler Board**
Regular G-P 5/8" wallboard for unheated ceiling areas.
5. **Joint Finishing Products**
G-P paper joint reinforcing tape and either G-P Triple Duty or Ready Mix Joint Compound.
6. **Thermostats**
M7 single line break, M7D double line break or M75 two stage.
7. **Exhaust Fan**
For humidity and air circulation (furnished by others).
8. **Humidstat**
For humidity control (furnished by others).
9. **Electrical Materials**
Junction boxes, branch circuits and other electrical components shall be furnished by others. These products shall conform to local codes and be installed in conformance with the National Electrical Code.

*Standard pigtail length is 12", but longer lengths are available.

G-P PANEL INSTALLATION DETAILS

The G-P radiant heat panels shall be applied to the ceiling framing members and attached with insulated nails spaced 8" o.c. The nails may be driven through any part of the panel except the areas where the copper electrodes are located. These areas are identified by a "no-nail" legend. Use full panels wherever possible. Both full-conductive and half-conductive panels may be cut to length by using a saw. Only the half-conductive panels may be trimmed to width which is accomplished by trimming the unheated half (24-inch maximum) as required. Cutouts for lighting fixtures may be made in the field of the panel, but never where the electrodes are located (no-nail lines). Allow at least an 8" clearance around lighting fixtures or other electrical fixtures. A 2" clearance is sufficient for other openings. Never make more than two cutouts in larger panels. Cutouts must be located at least 6" from end and edges of panels. Space panel ends and edges 1/2" from sidewalls. This can be accomplished by installing the boards on the walls first or by shimming with small scraps of board. The ceiling area not covered by G-P radiant heat panel is to be filled with G-P 5/8" gypsum wallboard. Where radiant heat panel is applied to the underside of soffits, stairwells, etc., hold the radiant panel back at least one inch from the edge of the framing members and fill this in with 5/8" regular wallboard. This corner can then be protected using the normal metal bead. **Do not install G-P radiant heat panels in closets, over walls or partitions that extend to the ceiling, or over wall-hung cabinets.**

ELECTRICAL CONNECTIONS

Connect the panels in parallel to a 240 volt supply circuit. Whenever there is access to an attic space above the ceiling, attach the junction box to the joist above the insulation. When connecting panels that butt end to end, always match polarities. Locate the thermostat on an inside wall away from drafts or other heat sources, such as stoves or refrigerators. Each room should be connected on a separate circuit and thermostat.

INSPECTION

The panels are all checked before leaving the manufacturing point, but they should be checked again after they are installed and connected electrically. After each room is wired, check the resistance and amperage of the complete circuit to be sure that the wiring is correct. The total resistance for the circuit should be approximately 960 ohms divided by the lineal feet of full-conductive panel and 1950 ohms divided by the lineal feet of half-conductive panel.

FINISHING

After the circuits have been checked, the joints should be taped and finished with the recommended G-P joint finishing products. Prime with a high quality wallboard primer/sealer and finish using a latex base paint or other high quality paint. Acoustical or insulating materials shall never be applied to the surface of the panels.