

BOARD OF
BUILDING AND SAFETY
COMMISSIONERS

MARSHA L. BROWN
PRESIDENT

PEDRO BIRBA
VICE-PRESIDENT

VAN AMBATIELOS
HELENA JUBANY
ELENORE A. WILLIAMS

CITY OF LOS ANGELES
CALIFORNIA



ANTONIO R. VILLARAIGOSA
MAYOR

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

ANDREW A. ADELMAN, P.E.
GENERAL MANAGER

RAYMOND CHAN
EXECUTIVE OFFICER

Maxxon Corporation
920 Hamel Road
Post Office Box 253
Hamel, MN 55340

Research Report: RR 24229
(CSI 03540)

Expires: February 1, 2009

Attn: Marilyn Glampe
(763) 478-9600

GENERAL APPROVAL - Renewal - Maxxon Corporation Sound Control and Fire Resistive Floor/Ceiling Assemblies, utilizing Gyp-Crete and Gyp-Crete 2000.

DETAILS

Gyp-Crete is a high-strength gypsum cement for nonstructural use with aggregates in pouring crack-resistant, sound-insulating floors. Gyp-Crete is batch mixed on the job and pumped in place by authorized applicators of the Maxxon Corporation. Gyp-Crete shall have a minimum 28-day compressive strength of 1000 psi and a density of 100 pcf when tested in accordance with ASTM C-472. The mix proportions shall be as follows:

Gyp-Crete Floor Topping:

80 pounds Gyp-Crete (one bag)
1.8 cubic feet of sand
4 to 6 gallons of water

I. One-hour fire-rated floor/ceiling assemblies.

- a) 2" x 10" floor joists at 16" o.c. covered with ½"-thick wood structural panel and ¾"-thick coating of Gyp-Crete Floor Topping and having a ceiling of US Gypsum ⅝"-thick Firecode Type X gypsum board or US Gypsum ½"-thick Firecode Type C gypsum board.
- b) Same construction as (a) except gypsum board ceiling is supported by resilient metal channels at 24" o.c.

RR 24229
Page 1 of 5

Maxxon Corporation

RE: Maxxon Corporation Sound Control and Fire Resistive Floor/Ceiling Assemblies

- c) Same construction as (b) with R-11 fiberglass insulation above ceiling boards.

II Floor/ceiling assemblies having an STC and an IIC sound rating of 50 or more.

- a) 2" x 10" floor joists at 16" o.c. covered with 5/8"-thick wood structural panel, 3/4"-thick coating of Gyp-Crete Floor Topping and a floor covering of 40 ounce per square yard jute padding and 31 ounce per square yard carpeting. The ceiling is 5/8"-thick gypsum board supported by 25 gage resilient channels spaced at 24" o.c. (STC 50, IIC 50).

- b) 2" x 10" floor joists at 16" o.c. covered with 5/8"-thick wood structural panel, 3/4"-thick coating of 111 pcf Gyp-Crete Floor Topping applied over the wood structural panel with a bonding agent, Owens-Corning unfaced R-11 glass fiber insulation friction fitted between joists, 1/2"-thick Type X gypsum board ceiling applied to RC-1 resilient channels at 24" o.c. (STC 60) (TL 81-16).

Armstrong Premier Sundial Solarian (cushioned vinyl) floor covering applied over the above construction. (IIC 55) (IN 81-1).

- c) 2" x 10" floor joists at 16" o.c., 5/8"-thick wood structural panel over joists, 3/4"-thick coating of 111 pcf Gyp-Crete Floor Topping applied over the wood structural panel with a bonding agent, 1/2"-thick Type X gypsum board ceiling applied to RC-1 resilient channels at 24" o.c. (STC 58) (TL 81-17).

Armstrong Premier Sundial Solarium (cushioned vinyl) floor covering applied over the above construction. (IIC 50) (IN 81-3).

- d) 2" x 10" floor joists at 16" o.c., 5/8"-thick wood structural panel over joists, 1"-thick coating of 111 pcf Gyp-Crete Floor Topping applied over the wood structural panel with a bonding agent, 1/2"-thick Type X gypsum board ceiling applied directly to joists. (STC 50) (TL 81-19).

World Carpet Type 11-A, Class I Commendable Carpet, (0.5 psf) plus a 40 oz. hair jute pad (0.25 psf) applied over the above construction. (IIC 56) (IN 81-6).

- e) Trus Joist Corporation TJ1/25 at 24" o.c., 23/32"-thick tongue and groove wood structural panel (nailed and glued to joists), 3/4"-thick coating of 106 pcf Gyp-Crete Floor Topping applied over the wood structural panel with a bonding agent, 1"-thick USG 8 pcf Thermofiber insulation installed below joists with drywall channels (DWC) supported by Simpson ceiling support clips (CSC) at 24" o.c. (clips nailed with 6d common nails to the joists), 1/2"-thick gypsum board ceiling fastened to the drywall channels. (STC 59) (TL 81-105).

Maxxon Corporation

RE: Maxxon Corporation Sound Control and Fire Resistive Floor/Ceiling Assemblies

Bigelow Wool Carpet (56 oz/sq. yd.) and a hair jute pad (40 oz/sq. yd.) placed over the above construction. (IIC 54) (IN 81-20).

- f) Trus Joist Corporation TJ1/25 at 24" o.c., 23/32"- thick tongue and groove wood structural panel (nailed and glued to joists), 3/4"-thick coating of Gyp-Crete Floor Topping applied over the wood structural panel with a bonding agent, 2 layers of 1/2"-thick Type X gypsum board ceiling applied to RC-1 resilient channels at 16" o.c. Double channels are used at gypsum board butt joint locations. Joints of the second layer of the gypsum board must be offset 16" from joints of first layer. (STC 58) (TL 81-106).

Loose pile carpet (0.389 psf) and a hair jute pad (40 oz/sq. yd.) placed over the above construction. (IIC 54) (IN 81-23).

- g) 2" x 10" joists at 16" o.c., 5/8"-thick wood structural panel over joists, 1 3/8"-thick coating of Gyp-Crete Floor Topping applied over the wood structural panel with a bonding agent, 1/2"-thick Type X gypsum board ceiling installed over RC-1 resilient channels at 24" o.c. (STC 50).

Bigelow Stati-tuft Weldlok carpet, 7/16" nominal thickness, 38.9 oz/sq. yd. applied over the above construction. (IIC 51) (IN 81-10).

- h) 2" x 10" floor joists at 16" o.c., 5/8"-thick plywood over joists, 1 3/8"-thick coating of 106 pcf Gyp-Crete Floor Topping applied over the wood structural panel with a bonding agent, Owens-Corning R-11 unfaced glass fiber insulation batts friction fitted between joists, 1/2"-thick Type X gypsum board ceiling installed over RC-1 resilient channels at 24" o.c. (STC 50).

Hartco Foam Backed Parquet floor covering of 0.358" thickness applied over the above construction in accordance with the manufacturer's instructions. (IIC 55) (IN 8-11).

Armstrong Exelon Tile floor covering of 1/8" thickness and weighing 22 oz./sq. ft. applied over the above construction. (IIC 51) (IN 81-13).

Congoleum Flor-Ever (regular vinyl) floor covering of 0.085" thickness and weighing 38.9 oz/sq. yd. applied over the above construction. (IIC 51) (IN 81-14).

Maxxon Corporation

RE: Maxxon Corporation Sound Control and Fire Resistive Floor/Ceiling Assemblies

Hartco Regular Parquet of 0.306" thickness applied over the above construction in accordance with the manufacturer's instructions. (IIC 51) (IN 81-12).

- I) Open web joists with parallel 2" x 4" wood chords and 12" depth installed at 24" o.c., ¾"-thick T & G wood structural panel subfloor over joists, ¾"-thick coating of 106 pcf Gyp-Crete Floor Topping over wood structural panel, 0.106"-thick Armstrong Premier Sundial Linoleum over Gyp-Crete, and ⅝"-thick Type X gypsum board ceiling applied over RC-1 resilient channels at 24" o.c. (STC 58) (Intest Lab. 6-442-5), (IIC 53) (Intest Lab. 6-442-2).

World Carpet Type 11 A-Class 1 Commendable Carpet (50 oz./sq. yd.) applied over the above construction in lieu of the vinyl (IIC 74) (Interest Lab. 6-443-3).

- j) 2 x 10 joist at 16' o.c., 19/32" thick wood structural panel sheathing, 1⅝"-thick 1.8 mix design Gyp-Crete 2000® (112 pcf density) over ¼" thick Acousti-mat® dense rubber pad, 3½"-thick R-11 fiberglass insulation batt placed between joist, ⅝" thick Type X drywall ceiling applied to RC-1 resilient channels at 24" o.c.

Armstrong Industries Starship Solarian 64390 vinyl flooring adhered to the above construction (STC 61, IIC 55)

The approval is subject to the following conditions:

1. Before application of Gyp-Crete, the wood structural panel subfloor shall be coated with Latex 460, manufactured by Dow Chemical Company, at the rate of 1 gallon per 400 square feet.
2. All exposed gypsum board joints shall be taped and treated with joint compound.
3. The joints formed by the intersections of the floor and walls and of the ceiling and walls shall be caulked with an approved sound caulking material.

DISCUSSION

Standard sound test reports were submitted as substantiating data for the approval.

Maxxon Corporation

RE: Maxxon Corporation Sound Control and Fire Resistive Floor/Ceiling Assemblies

Addressee to whom this Research Report is issued is responsible for providing copies of it, complete with any attachments indicated, to architects, engineers and builders using items approved herein in design or construction which must be approved by Department of Building and Safety Engineers and Inspectors.

This general approval of an equivalent alternate to the Code is only valid where an engineer and/or inspector of this Department has determined that all conditions of this Approval have been met in the project in which it is to be used.

YEUAN CHOU, Chief
Engineering Research Section
2319 Dorris Place
Los Angeles, CA 90031
Phone (213) 485-2376
Fax (213) 847-0985

YC:elem
RR24229/wp8.0
R01/09/07
1A1/6B1/6B2/710/1208A