Diversified Panel Systems, Inc.
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RESEARCH REPORT: RR 25368
(CSI 13030)

Expires: February 1, 2025
Issued Date: March 1, 2023
Code: 2020 LABC

GENERAL APPROVAL – Renewal - Diversified Panel Systems Inc. DPS 500 Series Steel Refrigeration panels for walk-in coolers, freezers and processing areas.

DETAILS

Diversified Panel Systems Inc. DPS 500 Series panels consist of 26 gage galvanized steel skins, meeting ASTM A446, and have a core of expanded polystyrene beads manufactured by BASF Corporation as approved under ICC Evaluation Report No. ESR-1498. The panels are 4" to 12" in thickness and vary in width up to a maximum of 48".

The panels are approved as structural wall and ceiling panels for use in interior, non-fire rated walk-in coolers, freezer and process areas.

The approval is subject to the following conditions:

1. The panels are approved for use in accordance with Section 2603 of the 2020 Los Angeles City Building Code and shall comply with all requirements therein.

2. The foam plastic shall be separated from the interior of the freezer or cooler and from the room in which it is placed by use of ½-inch gypsum wall board, ½-inch plaster or other approved thermal barrier meeting the requirements specified in section 2603.4 of the 2020 Los Angeles City Building Code.

   EXCEPTION: The thermal barrier is not required if the cooler or freezer floor area does not exceed 400-square feet and the foam plastic insulation does not exceed a thickness of 4-inches.

3. The panels shall be manufactured in the shop of a City of Los Angeles licensed fabricator. Fabrication in unlicensed shops will invalidate the approval.

4. The panel core material shall have a density of 1.0 pcf.

5. The panels shall be used only in areas where combustible materials are permitted by code.

6. Daily tests of the physical properties of the core material shall be performed and records of such tests shall be maintained and provided to the department upon request.

7. Fasteners used for the various connections and fastening to the floor shall be the product approved by City of Los Angeles.

8. Complete design calculations shall be submitted to Structural Plan Check Section of each job. Plans and calculations shall bear the stamp and signature of a California registered civil or structural engineer or architect.

9. Maximum wall panel height shall be limited as follows:

Panel Thickness (inches)	Maximum Wall Panel Height (feet)	
	300 plf Axial Load	200 plf Axial Load
4	16	20
5	20	24
6	24	28
7	28	32
8	32	35
9	35	35
10	35	35
12	35	35

10. Shear wall and diaphragm shear values shall be limited as follows:

Maximum Height to Width Ratio	**Allowable Shear (plf)**
2:1	50
1:1	100
0.5:1	200

11. The Maximum allowable ceiling load (psf):

Panel Span (ft.)	Panel Thickness (in.)							
	4	5	6	7	8	9	10	12
8	40	40	50	50	50	50	50	50
10	27	30	30	40	40	50	50	50
12	20	20	20	30	35	35	40	45
14	15	15	20	20	25	25	30	35
16	12	15	15	15	20	20	20	25
18	10	10	10	15	15	15	15	20
20	8	8	10	10	10	10	15	15
22	6	6	6	9	10	10	10	10
24	5	5	5	7	8	8	8	10
26	4	4	4	6	7	7	7	10
28	3	4	4	5	6	6	6	8
30	3	4	4	5	5	5	5	7

12. Panels shall be provided with a permanent label specifying the fabricator and surface burning characteristics of the product.

Diversified Panel Systems, Inc.
RE: DPS 500 Series Steel Refrigeration Panels for Walk-in Coolers, Freezers and Processing Areas.

DISCUSSION

The report is in compliance with the 2020 Los Angeles City Building Code.

The approval is based on tests and engineering analysis.

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.

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.

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