

The logo for Huntsman Building Solutions, featuring the word "HUNTSMAN" in a bold, green, sans-serif font, underlined by a thick green horizontal bar.

# HUNTSMAN

BUILDING SOLUTIONS

A low-angle, upward-looking photograph of several modern high-rise apartment buildings. The buildings are light-colored with many windows, and the sky is a pale, overcast grey. A thick, curved orange line sweeps across the top of the image from the left side.

## D-MAX WALL™

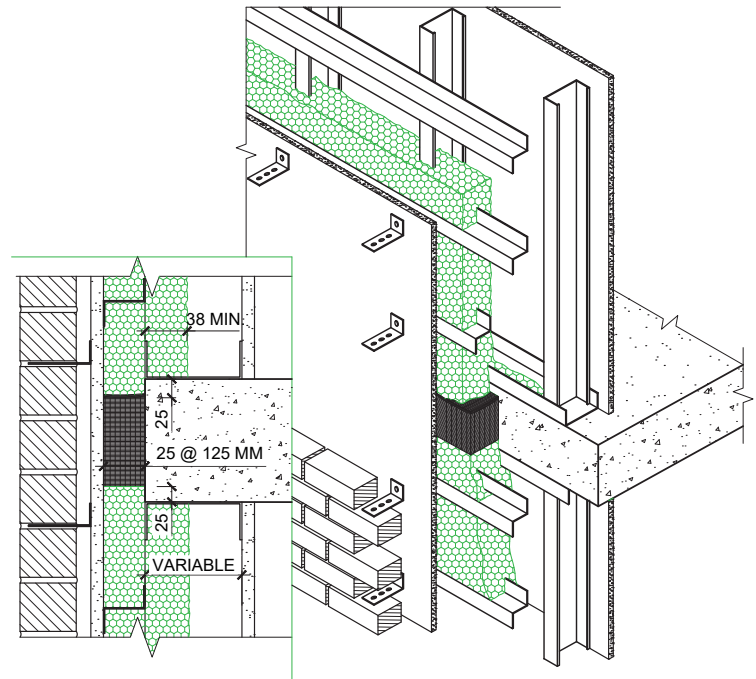
THE EASIEST METHOD TO MEET NEW ENERGY EFFICIENCY REQUIREMENTS, REDUCE CONSTRUCTION COSTS AND INCREASE JOB SITE PRODUCTIVITY WHILE ADDRESSING THERMAL BRIDGING.



The new D-Max wall assembly is a new type of assembly that allows the installation of spray foam insulation from the interior of the building while managing the thermal bridging of the studs and the structure. Thus, the weather conditions and the access to the facades are no longer an obstacle to the progress of the projects. The planning, coordination and execution of the work are much simpler and faster. One of the main advantages of this assembly is that Heatlok Soya HFO spray foam acts as insulation, air barrier and vapor barrier in a single application. The three main properties of the building envelope are provided by a single product. In addition, the D-Max wall allows a high performance assembly for effective thermal resistance and airtightness system with very thin walls. For these various reasons, construction is very fast, respects deadlines and is safer, which considerably reduces construction costs and accelerates building delivery.

## D-Max Wall Assembly Concept

The spray foam application is installed completely from the interior and will cut the thermal bridge of the studs by filling the gap between the exterior sheathing panel (exterior gypsum) and the studs. This gap is variable depending on the insulation values to be achieved and is created with a Z-bar. Z-bars are installed directly on the exterior face of the studs before the sheathing is installed. The spacing and size of the Z-bars vary depending on the type of building and cladding. A reference chart has been validated by an engineering firm.



## Benefits

- Spray application regardless of the temperature or wind (down to  $-20^{\circ}\text{C}$ ).
- Product applied completely from the interior: valuable time saving, no delay due to weather conditions.
- No scaffolding or hydraulic elevators. Less machinery, therefore reduced rental costs, logistics and risk of accidents.
- Insulation of the building possible as the walls are built.
- Exterior compartmentalization avoided (Article 3.1.11.2. of NBC or CCQ).
- Maximum speed of installation, requiring fewer workers and reducing construction costs.
- 1 product - 3 functions: insulation, air barrier and vapour barrier. 1 single application instead of 3 products and 3 applications.
- Interior furring is optional compared to conventional construction, electrical systems can be installed before or after insulation. No holes in the vapour barrier.
- Significant heating savings for winter construction.
- Better acoustical performance than a traditional assembly. Tested on site.





Example of productivity of the D-Max system. The cladding is installed from the ground floor to the third floor, the interior insulation is installed on levels 3 and 4 and the structure is poured on levels 6 and 7.

## Support

Huntsman Building Solutions' technical team is available to review design details, specifications, and provide on-site quality control services to tailor the D-Max wall assembly to the specific needs of each project and ensure quality installation.

For more information, please call 866-437-0223 or email us at [architect@huntsmanbuilds.com](mailto:architect@huntsmanbuilds.com)

## Certifications

The D-Max wall assembly has successfully completed the CAN/ULC S101 test in accordance with article 3.2.3.8. of the Canadian building codes and is UL certified with the UL EW25 assembly. The product is also Greenguard Gold certified, which means that it is low VOC emission to ensure better indoor air quality.

1. UL EW25 assembly tested to CAN/ULC S101
2. ASTM E96 Water Vapour Permeance
3. ASTM E2178 Air Permeance
4. GREENGUARD GOLD Certification - Air Quality
5. Firestop certification by Hilti, 3M and STI
6. LEED V4: EPD-HPD-ACV
7. UL Listed
8. CCMC 14078-L
9. ASTM E966 / ASTM E1332 - Apparent Indoor-Outdoor Transmission Class - AOITC 45

## D-Max Wall Assembly Step by Step



**1.**

Installation of studs and Z-bars directly on the outside of the slabs.



**2.**

Installation of exterior sheathing on Z-bars and mineral wool in front of slabs and columns.



**3.**

Seal exterior panel joints with transition membranes or install full surface air barrier.



**4.**

Spray Heatlok Soya HFO according to the specified thickness.



**5.**

Installation of electrical systems. (This can be completed before or after the spray foam installation)



**6.**

Installation of the interior finish.

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