LOGIX D-Rv[™]

TECHNICAL BULLETIN No.36 - 011713 Revised 022513



When a direct applied finish, such as stucco, is used on an exterior ICF wall, a drain layer may be required either by code, or at the request of the designer. The typical method is to install an extra layer of rigid foam insulation directly over the ICF with adhesive or mechanical fasteners. The added insulation contains a series of air gaps between the face of the ICF and the rigid foam insulation. In the event that moisture penetrates the finish, the air gaps provide a drainage path for water to escape. The exterior finish would then be applied directly on the rigid foam insulation.



However, this method involves added cost in labor, material and time to the construction project.

To provide a less expensive alternative, yet faster and simpler to install, Logix has designed a product that not only provides the required drainage layer, but also adds insulation and strength to any Logix wall assembly - the patent-pending Logix D-Rv[™].

DRAINAGE LAYER

Logix D-Rv[™] are 2 inch thick EPS (expanded polystyrene) panels designed with a 10 mm (or 0.39 inch) drainage cavity. Instead of being installed on the exterior face, as is typically done, Logix D-Rv is installed against the inside face of a Logix form block. This allows the exterior finish to be applied directly onto the Logix ICF wall.

Independently tested, Logix D-Rv[™] shows a drainage efficiency of 96%¹, which is well above the typical minimum 90% drainage efficiency requirement².



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Due to the high drainage efficiency, and the natural tendency of EPS to repel water, Logix D-RvTM acts like a water resistive barrier. Any water that does reach the concrete core of the Logix wall would be small enough to simply be absorbed by the concrete in the hydration process.

Having Logix D-Rv[™] installed within the Logix ICF form walls creates other benefits described below.

Faster Build & Eliminates Construction Work

Installation of Logix D-Rv[™] is straight forward. Logix D-Rv[™] snap into place within the Logix form blocks, and can be installed into the Logix form blocks either before or while the form blocks are stacked to build the wall. This speeds up the construction process and eliminates the need to apply the drain layer to the exterior face after a Logix wall has been built.

Eliminates Adhesives or Mechanical Fasteners.

No adhesives or mechanical fasteners are needed to ensure Logix D-RvTM stay in place after installation. Logix D-RvTM are designed with narrow slots to allow easy insertion between the web ties. The slots are designed with a locking feature to ensure Logix D-RvTM maintain a tight fit between the web ties, and are firmly against the Logix forms. The locking feature also prevents Logix D-RvTM from uplift during concrete placement.

The added concrete pressure exerted on Logix D-Rv[™] during concrete placement provides added assurance that Logix D-Rv[™] are firmly against the Logix ICF form panels.



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Increases Strength and Rigidity.

The combination of a 2.75" thick Logix form panel and a 2" thick Logix D-RvTM creates a thicker wall form that provides greater strength to resist concrete form pressure. In addition, Logix D-RvTM can be placed across the vertical joint of adjoining Logix forms. When placed in this manner, the vertical joints of adjoining Logix forms are held tight together creating a more rigid wall structure, which can eliminate the need for Form Lock.

INCREASED R-VALUE

An added benefit of Logix D-Rv[™] is the extra R-value a Logix wall achieves. Independently tested, Logix D-Rv[™] provide an additional R8 to the total R-value of a Logix wall assembly³, or R9 when the D-Rv is made of Neopor - the same material used to make Logix Platinum. As a result, Logix D-Rv[™] can increase the total R-value of a typical Logix wall assembly as shown in the table below⁴.

	Logix PRO	Logix Platinum
D-Rv	R33	R36
D-Rv with Neopor	R34	R37

- 1. QAI Test Report No: RJ2129-P1
- Although, there is no minimum required drainage efficiency in the National Building Code of Canada, 90% is typically accepted as the minimum value, which is also the requirement in the International Building & Residential Codes in the US.
- 3. QAI Test Report No: RJ2129-P2
- 4. See Logix Technical Bulletin No.30, Total R-value of Logix Wall Assemblies
- See Logix Technical Bulletin No.32, Changes to Canadian Energy Codes 2012
 See Logix Technical Bulletin No.33, Changes to The US Energy Codes 2012
 See Logix Technical Bulletin No.34, Ontario Energy Codes 2012 - Commercial & Residential

Whether a drainage layer is specified or not, any Logix wall can use Logix D-RvTM to increase the R-value of a Logix wall assembly. The drain feature of Logix D-RvTM will offer the comfort of knowing your building envelope has a second drainage layer of protection against moisture ingress. And with new energy and building codes requiring higher R-values, Logix wall assemblies that include the patent-pending Logix D-RvTM can easily meet the higher R-value requirements⁵.

For more information please contact your local Logix representative or email info@Logixicf.com.

