COMMERCIAL PRODUCTS

ICYNENE®

EXPLORE GEOMETRY AND SPACE

WITHOUT COMPROMISING BUILDING ENVELOPE PERFORMANCE

Commercial design considerations come with very specific challenges that can't be addressed with just any type of insulation. Intensive use, acoustic considerations, HVAC, and aesthetic qualities barely scratch the surface. What about concealed condensation, corrosion, moisture build-up, and inefficient heating and cooling systems?

Icynene® insulation products let you design without compromise. Ideal for both wood or steel-framed construction, Icynene delivers a perfect fit for any shaped cavity. Unlike traditional insulation, Icynene conforms to unusual geometry and provides a continuous, protective barrier that significantly reduces air leakage, minimizes airborne moisture transfer, and optimizes energy efficiency.

An insulation material that fails to control air leakage will be inadequate in resolving the associated health and economic concerns. Thermal performance, air quality, energy consumption, sound attenuation, and building durability are all negatively affected by uncontrolled air leakage. Integrating Icynene as part of a sustainable design strategy has proven to be an effective tool that allows design professionals to provide their clients with the advantage that comes from a controlled environment.

Founded and manufactured in Canada, Icynene has been servicing the Canadian Market for over 25 years. Icynene spray foam solutions conform to unique designs and allow for greater flexibility and creativity. With an industry leading lifetime warranty, and exceptional product support, Icynene is the best solution for your next project.

OPEN CELL OR **CLOSED** CELL
SPRAY FOAM INSULATION?

Architect and building owners selecting energy efficient spray foam insulation for their projects have a choice between specifying a 0.5 lb per cubic foot light density open cell product, or a 2.0 lb per cubic foot medium density closed cell product. Both product types are suitable for commercial construction. The decision to specify either one will make a difference in the finished cost, product performance, and application requirements.

Light Density Open Cell:

- Spray in place insulation and air barrier
- Vapour permeable
- Will accommodate long term creep and seasonal movements
- Does not sustain mould
- Some formulas allow for water drainage
- Water commonly used for blowing agent
- Suitable for interior applications only

Medium Density Closed Cell:

- Spray in place insulation and air barrier
- Low vapour permeance
- Rigid design adds structural reinforcement
- Does not sustain mould
- Deflects water path
- Blowing agent increases LTTR value
- Suitable for both interior and exterior applications

Key Advantages of Open Cell:

- Soft and flexible with superior adhesion characteristics retains tight air seal during normal structural movement/shifting over the life time of the building
- Vapour permeable permits bi-directional drying of assemblies
- When applied to the underside of a roof deck, will allow for bulk water to pass through and visibly expose the location of an exterior roof leak
- Soft open cell structure allows for greater sound absorption versus closed cell structure
- Using a water based blowing agent instead of a synthetic blowing agent reduces the environmental impact
- Lower cost – approximately 20 – 40%

Key Advantages of Closed Cell:

- Higher R-value per inch, easier to accommodate higher R requirement in narrow spaces or thinner wall capacity
- Hard, rigid texture provides increased wall racking strength (if necessary)
- Also suitable for exterior and below grade applications as it rejects bulk water
- Lower vapour permeance
- Impact resistance

Please consult with your SPF manufacturer prior to installation to ensure the above statements accurately represent your product

OPEN CELL **ICYNENE**

HIGH PERFORMANCE 100% WATER BLOWN PRODUCT

ICYNENE LD-C-50® CLASSIC

- Light density, open-cell structure
- Contribution to LEED points
- R-Value = 3.7 per inch
- Original Icynene formulation of 25+ years
- Vapour permeable, supports bi-directional drying of assemblies
- Not a food source for mould
- Soft, flexible composition maintains an air seal even after seasonal expansion/contraction of building assembly
- Suitable for interior cavity fill applications
- Rejects bulk water
- Lower cost compared to closed-cell products
- Low global warming potential (GWP of 1)
- Superior cold temperature adhesion to multiple substrates

PROVEN PERFORMANCE – THE LIGHT DENSITY LEADER

Icynene LD-C-50® is the product that made the Icynene name synonymous with superior quality, open-celled, 0.5 lb., light density spray foam insulation. Icynene LD-C-50® has been used in thousands of residential and commercial projects for over 25 years and is the industry benchmark for quality and innovation by which all other light density insulation products should be judged.

100% WATER BLOWN TECHNOLOGY

ICYNENE LD-C-50® foam insulation products are 100% water-blown meaning they use no synthetic blowing agents or ozone depleting substances. The reaction used to create these products generates Carbon Dioxide to expand the foam. Carbon Dioxide has the lowest Global Warming Potential (GWP of 1)[1]

To quickly access Icynene's 3-part CSC Specification for **LD-C-50** scan the above code with your smart-phone or visit http://www.icynene.com/technical-data-and-specifications/

[1]All measure of GWP are given to carbon dioxide, the most well-known gas with global warming potential, which has a GWP of 1.

CLOSED CELL **ICYNENE**

HIGH PERFORMANCE INSULATION, NON-OZONE DEPLETING BLOWING AGENT PRODUCT

ICYNENE MD-C-200™

- Medium density closed cell structure
- LTTR of RSI 1.94 @ 50mm (R11.2)
- Contributes to LEED Points
- Rigid composition contributes to added wall racking strength
- Air impermeable material resists convective heat and moisture flow
- Meets the NBC requirement for vapour barriers @ 50mm (36 ng/Pa.s.m2)
- Rejects intermittent water exposure
- Suitable for both interior and exterior applications
- Formulations for various Climate Zones and temperatures
- Contains recyclable content

To quickly access Icynene's 3-part CSC Specification for **MD-C-200** scan the above code with your smart-phone or visit http://www.icynene.com/technical-data-and-specifications/

ICYNENE.com

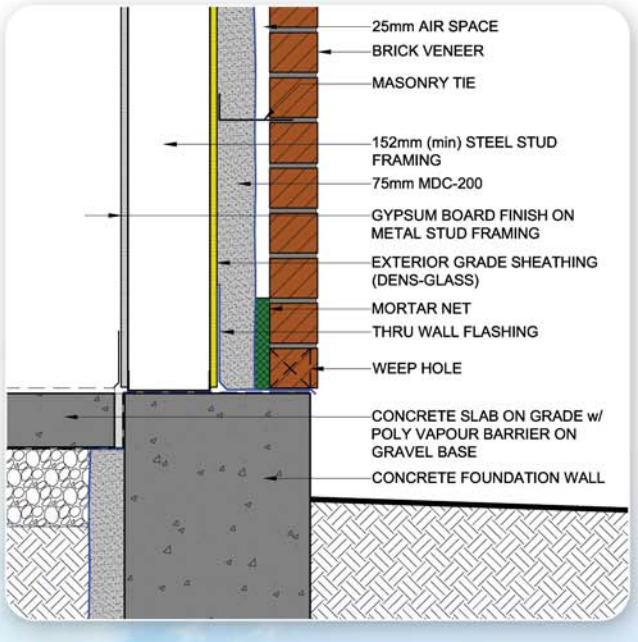
COMMERCIAL WALL ASSEMBLIES
ADDITIONAL EXTERIOR VENEER CLADDING OPTIONS

- Complies with CAN/ULC S705.1 and .2 and its amendments
- Allows architects to design to meet or exceed the ASHRAE 90.1-2007 Energy Standard for Buildings

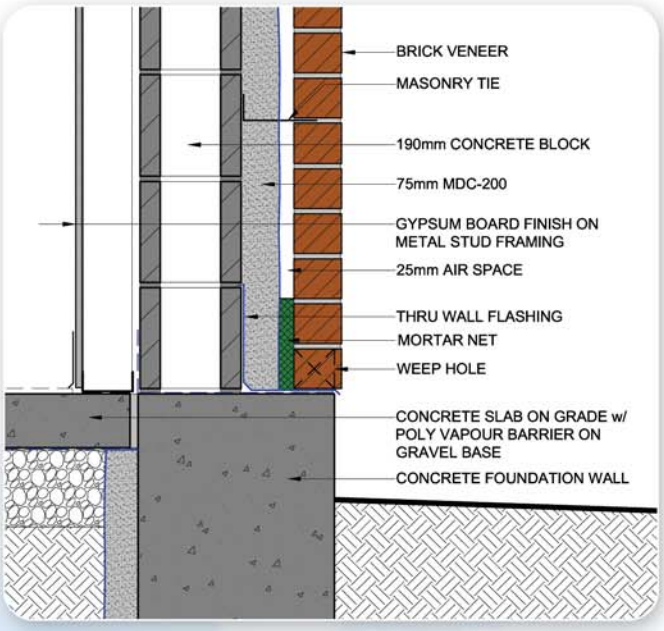
In addition to the brick veneer wall assemblies pictured below, ICYNENE MD-C-200™ CDN may also be installed with many other cladding systems:

- Block masonry veneer cavity wall
- DensGlass® sheathed stud wall assemblies with masonry veneer or architectural panelization
- Precast concrete panels

MD-C-200 CDN will provide thermal protection and serve as an air barrier, vapour barrier (@ 50mm) and provide a monolithic, continuous drainage plain in a cavity wall or panelized assembly.



STEEL STUD CAVITY WALL DETAIL



MASONRY CAVITY WALL DETAIL

[1]DensGlass is a trademark owned by Georgia-Pacific Gypsum LLC.
[2]James Hardie is a trademark owned by James Hardie Building Products, Inc.

ICYNENE® ARCHITECTURAL RESOURCES

NEW AIA CONTINUING EDUCATION PRESENTATION INTRODUCED

For many years Icynene has worked closely with the AIA as an approved provider within their Continuing Education System (CES). Over the past decade, Icynene has completed over 2,700 live presentations to more than 32,000 architects throughout North America. Our AIA course may be recognized by your Provincial association and the AIA credits earned may be applicable to CE credit requirements in Canada. Contact Icynene for more information.

DESIGNING FOR THE FUTURE
Understanding Light Density and Medium Density Open Cell and Closed Cell Spray Foam Insulation

SOME KEY LEARNING OBJECTIVES FEATURED IN THE PRESENTATION INCLUDE:

- Why SPF Products are growing in popularity and replacing traditional insulation materials
- The differences between open and closed cell spray foam insulation products
- The fundamentals of heat transfer
- Structures for effective air sealing
- The importance of having the materials installed by a properly trained technician certified by the SPF manufacturer
- Learning Units: 1 HSW/SD credit

For more information please visit www.GreenCe.com

NEW ARCHITECTURAL SAMPLE KITS NOW AVAILABLE FOR KEY CLIENT PRESENTATIONS

Recognizing that architects often require attractive, professional collateral materials for critical product evaluation and various client meetings, Icynene recently introduced a new commercial sample presentation kit. For more information on this exciting new package, contact your local ICYNENE sales representative.

RESPONSIBILITY

ICYNENE'S CORPORATE SUSTAINABILITY PHILOSOPHY

Icynene believes that being a good corporate neighbor and a responsible steward of the world's resources means providing innovative solutions that helps address issues such as energy consumption and global warming. As one of the foremost manufacturers of spray foam insulation for the North American construction market, Icynene is leading the insulation industry to a new level of sustainability through its commitment to environmentally-preferable, spray foam technology that provides superior energy efficiency. Visit **ICYNENE**.com for more information about LEED points with CaGBC LEED Program.

Icynene is also dedicated to reducing its own environmental footprint and educating our employees on conservation issues, teaching them how to be greener, and directing them to additional environmental resources. The Icynene Go Green initiative is an all-inclusive environmentally friendly green program that allows all staff the opportunity to actively participate.

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