Insulation For All Seasons

Consumers today are more conscious of the quality of a product and less concerned with the immediate price. Not to say that price doesn't matter, but homeowners are looking for products that will save them money on an ongoing basis. Therefore, manufacturers must compete in the marketplace by making products that will help consumers achieve long-term savings.

With the rising cost of energy, and the uncertainty as to how high these costs will actually rise, homeowners are doing everything they can to reduce the amount they pay in heating bills. Proper insulation in a home can reduce total home energy usage by 60 to 80 per cent. It seems only logical that consumers are going after the best products at the best prices. But to ensure a sale, retailers must give the consumer as much information about the product as possible. It's important to know what product will satisfy the needs of your customers best. The following is a list of some of the more popular forms of insulation.

Batt

Manufactured from glass spun into long fibres, *Glass Fibre Batt* is lightweight, fire- and mould-resistant, and fits standard joist and stud spaces. With careful installation, it will not slump or settle. However, it doesn't easily fit into irregular spaces and can result in voids around obstructions such as nails, electrical wires, and trusses. As well, during installation, glass fibre can cause skin, eye, and respiratory irritation.

Mineral Wool Batt is similar to glass fibre in texture and appearance, but uses either natural rock or slag in the manufacturing process. This type of insulation is highly fire-resistant, making it ideal for insulating around chimneys. It is manufactured for standard joist and stud spacings and is relatively easy to install. However, it can leave insulation voids around obstructions, does not readily fit irregular spaces, and should not be covered with any other materials that could compress it. During installation, it may cause eye, skin, and respiratory irritation.

Rigid

Glass Fibre - above grade is designed as an exterior sheathing. It is faced with an air/moisture barrier on one side to prevent water and wind intrusion. This insulation is relatively non-combustible.

Expanded Polystyrene (Bead Board) is manufactured in two densities – high and low. Polystyrene is lightweight, less expensive than most other rigid insulations, and can be installed on the interior or exterior where space is limited. However, it must be protected from sunlight, solvents, and non-compatible sealants. When used on the interior, a fire-resistant covering is needed.

Extruded Polystyrene is a closed-cell foam plastic board, also manufactured in high and low densities. Both are suitable for below grade applications. The high-density board can handle relatively high pressures and, when joints are properly sealed, extruded polystyrene can act as an air barrier.

Phenolic Foam is made from phenol formaldehyde resin and is available as an open or closed cell product. This form of insulation must be protected from prolonged exposure to sunlight and water and is currently the most expensive rigid insulation on the market.

Polyurethane and Polyisocyanurate are closed-cell boards made by chemical reactions between poly-alcohols and isocyanurates. Although they are more expensive than most other types of insulation, they have the advantage of acting as both an air and vapour barrier when joints are properly sealed.

Loose Fill

Cellulose Fibre insulation is manufactured from finely-shredded newsprint. However, due to its chemical treatment during manufacturing, it resists fire and fungal growth. The small particles of cellulose are

ENERGY SAVING CHECKLIST

This is the season when consumers begin shopping for products to help reduce their heating costs throughout the winter months.

They'll be walking up and down the aisles of your store looking for insulation and energy efficient products that will help them achieve reasonable electricity or gas bills by creating a draftless house.

Postings or take-home pamphlets consisting of helpful hints to increase the energy efficiency of your customer's home will help to position you as a knowledgeable resource for any immediate and future energy efficient products they may need.

Home Draftproofing

- Locate and seal any air leaks in the walls, ceilings, floors, and basements.
- Check and replace all worn or damaged weatherstripping on windows and doors.
- Caulk the inside of all windows and doorframes.
- Remove, caulk, and replace exterior wall baseboards.
- Install foam draft enders on all electrical wall outlets.
- Caulk electrical, plumbing, and any other vents, both inside and outside the home.
- Seal around ceiling fixtures and caulk where wires enter.
- Check dryer and exhaust vent hoods to make sure flappers close properly. If not, repair or replace.
- Seal around plumbing stacks and use a high-temperature sealant around the chimney.
- Weatherstrip and insulate interior attic access doors.

Energy Saving Secrets

- Check all radiators and registers to make sure furniture or drapery is not blocking them.
- Regularly clean the surfaces of radiators, convectors, baseboards, and finned tube heaters.
- Remove, or tightly cover air conditioners during the cooler months.
- Check and replace damaged refrigerator and freezer seals.
- Using a vacuum cleaner, clean the condensor coils at the back or bottom of refrigerators and freezers regularly.
- Dry normal-sized loads of laundry back-to-back. Overloading cuts down on efficiency and back-to-back drying makes use of left-over heat.
- Install draft guards at the bottom of any doors that open to an unheated area.
- Avoid opening the oven door too often when cooking. And turn the oven off about 15 minutes before the end of the cooking time.
- Avoid using stove and bathroom exhaust fans in the winter; they remove warm air from the home.
- Set ceiling fans in reverse during winter months to recirculate warm air.

able to flow around nails, electrical wires, and trusses to give a uniform fill. Blown Cellulose can be installed in vertical wall pockets by using a variety of specially designed, reinforced interior sheeting products. Poured Cellulose must be applied to the manufacturer's recommendations in order to achieve the desired density. Both methods allow users to fill irregular horizontal spaces and are resistant to fire, corrosion, vermin, and fungal growth. Blown Cellulose can be installed with rented equipment or it can be hand poured. *Vermiculite* is a mineral closely related to mica, which expands when heated to form a lightweight insulating material. Vermiculite is available in untreated and treated materials. The treated material is coated with asphalt to make it water-repellent for use in high moisture areas. This material is non-combustible and easily poured into irregular spaces. As well, it is non-abrasive, odourless, and non-irritating. However, after absorbing moisture, untreated vermiculite dries very slowly.

Dow Styrofoam brand insulation has been used in the construction of more than two million homes worldwide.

Spray Foam

Polyurethane is a closed-cell foam that can be used for a variety of spray applications. It can either be mixed on site with special equipment for large applications or is available in spray cans for small jobs such as sealing around windows and doors. Specially trained contractors are required for large applications.

Isocyanurate foam is manufactured from a combination of Isocyanurate, resins, and catalysts which create an open-celled, semi-flexible, plastic foam insulation. This type of insulation acts as an air barrier and is good for irregular shapes and spaces. However, trained contractors are required to apply it.

Spray-In-Place

These insulations are loose fill products – commonly cellulose, glass fibre blowing wool, and mineral or rockwool – which are blown into wall cavities. The insulation is mixed with a water-base adhesive during the blow-in stage which binds the insulation together to form a seamless batt. When installed correctly, it resists settling and shifting and allows the cavity to be completely filled.