

Product Information Bulletin 226

NRCan EnerGuide Rating System

Product Information Bulletin

EPS Product Solutions

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NRCan EnerGuide Rating System

This bulletin provides an overview of the EnerGuide for Houses program, a standard guide developed by Natural Resources Canada (NRCan) for rating the energy efficiency of residential construction, and highlights Plasti-Fab™ EPS product solutions for use as components in energy efficient structures.

An EnerGuide for Houses rating is an objective tool for assessing the energy performance of a new home using a standardized measure. A home's energy efficiency level is rated on a percentage scale of 0 to 100. A rating of 0 represents a home with major air leakage, no insulation and extremely high energy consumption. A rating of 100 represents a house that is airtight, well insulated, sufficiently ventilated and requires no purchased energy.

A Guide to EnerGuide for Houses Ratings

Type of House	EnerGuide for Houses Rating
Old house not upgraded	0 to 50
Upgraded old house	51 to 65
Energy-efficient upgraded old or typical new house	66 to 75
Energy-efficient new house	68 to 82
Highly energy-efficient new house	80 to 90
House that uses little or no purchased energy; an "Advanced House"	91 to 100

Examples of Plasti-Fab products that can contribute towards higher EnerGuide for Houses ratings include:

Building Construction Description	Plasti-Fab Product	Effective R-Value
Above-Grade Stick Frame Construction		
Wood Studs @16" o/c c/w R-20 Batt Insulation	NA	R-16.8
+ R-4.0 Insulating Sheathing	PlastiSpan M-Board @ 1-inch	R-21.5
+ R-5.0 Insulating Sheathing	PlastiSpan M-Board @ 1.25-inch	R-22.6
+ R-6.0 Insulating Sheathing	PlastiSpan M-Board @ 1.5-inch	R-23.7
+ R-8.0 Insulating Sheathing	PlastiSpan M-Board @ 2-inch	R-25.9
+ R-12 Insulating Sheathing	PlastiSpan M-Board @ 3-inch	R-30.2
Plasti-Fab Building Systems		
6.5" thick Structural Insulated Panel System	PlastiSpan SIP System	R-23.6
Insulating concrete forming system	Advantage ICF System	R-23.6
Below-Grade Foundation Wall		
Concrete Wall	NA	R-1.0
+ R-8 full height interior or exterior insulation	PlastiSpan M-Board @ 2-inch	R-9.6
+ R-12 full height interior or exterior insulation	PlastiSpan M-Board @ 3-inch	R-13.5
+ R-20 full height interior or exterior insulation	PlastiSpan M-Board @ 5"-inch	R-21.5
Insulating Concrete forming system	Advantage ICF System	R-22.8

R-Value (thermal resistance) is a measure of the ability of an insulation material or building component to slow the rate of heat transfer. Nominal R-Value is the thermal resistance value for insulation material only, whereas, effective R-Value recognizes overall rating for the complete wall assembly including framing members. It should be noted that any of the above recommended alternatives using PlastiSpan M-Board would provide an R-Value exceeding **nominal** R-Values as recommended for the R-2000 program or the **effective** R-Value as recommended by the Model National Energy Code for Houses (MNECH).