

Product Information Bulletin

Plasti-Fab® EPS Product Solutions 2012 OBC, MMAH Supplementary Standard SB-12

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Plasti-Fab® manufactures expanded polystyrene (EPS) product solutions that meet energy efficiency requirements in the 2012 Ontario Building Code. This bulletin summarizes energy efficiency requirements applicable for buildings with residential occupancy per 2012 OBC, Part 9 required to comply with 2012 OBC, Division B, Part 12, **Resource Conservation and Environmental Integrity**.

2012 OBC, Article 12.2.1.1. Energy Efficiency Design Before January 1, 2017:

- 1) This article applies to construction for which a permit has been applied for before January 1, 2017.
- 2) Except as provided in Sentences (3) and (4), the energy efficiency of all buildings shall conform to MMAH Supplementary Standard SB-10, "Energy Efficiency Requirements".
- 3) Except as provided in Sentence (4), the energy efficiency of a *building* or part of a *building of residential occupancy* that is within the scope of Part 9 and is intended for occupancy on a continuing basis during the winter months shall,
 - a) meet the performance level that is equal to a rating of 80 or more when evaluated in accordance with NRCan "EnerGuide for New Houses: Administrative and Technical Procedures", or
 - b) conform to Chapters 1 and 2 of MMAH Supplementary Standard SB-12, "Energy Efficiency of Housing".
- 4) This article does not apply to,
 - a) A *farm building*,
 - b) a *building* that does not use electrical power or fossil fuel,
 - c) a manufactured *building* described in Article 9.1.1.9., or
 - d) a seasonal recreational *building* described in Section 9.36. or 9.38.

MMAH Supplementary Standard SB-10, **Energy Efficiency Requirements** applies to energy efficiency design of all buildings **except** buildings with residential occupancy required to comply with 2012 OBC, Division B, Sentence 12.2.1.1.(3). For additional information on Plasti-Fab EPS solutions available to meet requirements of MMAH SB-10, refer to Plasti-Fab Product Information Bulletin No. 290.

Buildings with residential occupancy required to comply with 2012 OBC, Division B, Part 9 must meet the requirements of 2012 OBC, Sentence 12.2.1.2.(3) using one of the three compliance options in MMAH SB-12, Chapter 2 to achieve energy efficiency:

1. Comply with the one of the prescriptive compliance packages from Subsection 2.1.1.
2. Comply with the performance compliance method in Subsection 2.1.2., or
3. Comply with the technical requirements of NRCan "*Energy Star for New Homes: Technical Specifications*" as specified in Subsection 2.1.3.

Note: SB-12 compliance options 2 and 3 require detailed design of all aspects of the energy efficiency design of buildings using recognized simulation software to calculate annual energy use.

Tables 2.1.1.2.A, 2.1.1.2.B, 2.1.1.2.C, 2.1.1.3.A, 2.1.1.3.B and 2.1.1.3.C in 2012 OBC, MMAH Supplementary Standard SB-12, Chapter 2 provide prescriptive compliance packages which include requirements for the minimum thermal performance and energy efficiency of building envelope and space heating equipment, domestic hot water heating equipment and heat recovery ventilators equipment. **NOTE:** The minimum thermal performance for floor, wall and ceiling components listed in the tables are minimum RSI expressed in units of (m²•K)/W [R-value expressed in units of (ft²•hr•°F)/BTU] for the thermal insulation component only **except for ICF wall options as noted below.**

The following table provides examples of Plasti-Fab EPS product solutions that can be used to meet MMAH SB-12 minimum thermal resistance requirements for wall and floor building envelope components. For additional Plasti-Fab EPS insulation solutions available to meet MMAH SB-12 requirements contact a Plasti-Fab Sales Representative using our toll free number 1-888-446-5377.

2012 OBC, Supplementary Standard SB-12, Compliance Packages J, K and L from Tables 2.1.1.2.A and 2.1.1.3.A	Ontario Climate Zone	SB-12 Minimum R-value	Cavity Insulation R-value	Plasti-Fab EPS Insulation		
				Type	Inches	R-value
Plasti-Fab EPS Solution Options for Walls Above Grade						
Compliance Package J: Wood framed wall with PlastiSpan® or DuroFoam® insulating sheathing – see notes 1 and 4.	1	22	13	1	2 3/8	9
	2	24	19	1	1 3/8	5
Compliance Package K: Advantage ICF System® for walls above grade & basement walls – see note 2.	1	22	NA	2	5 1/4	22.4
	2	22	NA	2	5 1/4	22.4
Compliance Package L: Wood framed walls with PlastiSpan insulating sheathing (Advantage ICF System basement walls) – see note 3.	1	24	19	1	1 3/8	5
	2	24	19	1	1 3/8	5
Compliance Package J: Insulspan® SIP System – 8 1/4" SIP See also Insulspan PIB 210.	1	22	NA	1	7 3/8	28
	2	24	NA	1	7 3/8	28
Plasti-Fab EPS Solution Options for Basement Walls						
Compliance Package K or L: Walls constructed with Advantage ICF System – see note 2.	1	22	NA	2	5 1/4	22.4
	2	22	NA	2	5 1/4	22.4
Compliance Package J: DuroFoam insulation applied to interior of foundation wall	1	12	NA	1	3 1/4	12
	2	12	NA	1	3 1/4	12
Compliance Package J: PlastiSpan HD insulation applied to exterior of foundation wall	1	12	NA	2	3	12
	2	12	NA	2	3	12
Compliance Package J: PlastiSpan insulation above or below slab-on-grade concrete floor (between wood strapping if above)	1	10	NA	2	2 1/2	10
	2	10	NA	2	2 1/2	10
Compliance Package J: PlastiSpan HD hydronic insulation above or below slab-on-grade concrete floor c/w radiant floor heating system	1	10	NA	2	2 1/2	10
	2	10	NA	2	2 1/2	10

Notes to Tables 1 and 2:

1. The thermal resistance (RSI/R-value) recognized for an ICF wall in SB-12 is the total thermal resistance of the entire wall assembly. For other types of wall systems, the values listed are minimum RSI/R-values for the thermal insulation component only.
2. Compliance package K applies only to a building with both ICF basement walls and ICF above grade walls. **Alternatively, any other compliance package is permitted to be used for a building with both ICF basement walls and ICF above grade walls.** The thermal resistance value of an ICF wall is the total thermal resistance of the entire wall assembly.
3. Compliance package L applies only to a building with ICF basement walls. **Alternatively, any other compliance package except compliance package K, is permitted to be used for a building with ICF basement walls.** The thermal resistance value of an ICF wall is the total thermal resistance of the entire wall assembly.
4. Except for a foundation wall, the insulated portion of a wall that incorporates wood stud framing elements that have a thermal resistance of less than RSI 0.90 shall be insulated to restrict heat flow through the studs by a material providing a thermal resistance at least equal to 25% of the thermal resistance required for the insulated portion of the assembly.