

International Energy Conservation Code - IECC Fenestration Product Rating

The International Building Code (IBC) mandates that buildings be designed and constructed in accordance with the International Energy Conservation Code (IECC). The following tables specify the fenestration product ratings for the following versions of IECC: 2009, 2012, and 2015.

IECC - 2009

303.1.3 Fenestration product rating.

U-factors of fenestration products (windows, doors, and skylights) shall be determined in accordance with NFRC 100 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled U-factor shall be assigned a default U-factor from Table 303.1.3(1) or Table 303.1.3(2). The solar heat gain coefficient (SHGC) of glazed fenestration products (windows, glazed doors, and skylights) shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled SHGC shall be assigned a default SHGC from Table 303.1.3(3).

Table 303.1.3 (1) - Default Glazed Fenestration U-Factor

FRAME TYPE	SINGLE PANE	DOUBLE PANE	SKYLIGHT	
			Single	Double
Metal	1.20	0.80	2.00	1.30
Metal with Thermal Break	1.10	0.65	1.90	1.10
Nonmetal or Metal Clad	0.95	0.55	1.75	1.05
Glazed Block	0.60			

Table 303.1.3(2) - Default Door U-Factors

DOOR TYPE	U-FACTOR
Uninsulated Metal	1.20
Insulated Metal	0.60
Wood	0.50
Insulated, nonmetal edge, max 45% glazing, any glazing double pane	0.35

Table 303.1.3(3) - Default Glazed Fenestration SHGC

SINGLE GLAZED		DOUBLE GLAZED		GLAZED BLOCK
Clear	Tinted	Clear	Tinted	
0.8	0.7	0.7	0.6	0.6

IECC - 2012

C303.1.3 Fenestration product rating.

U-factors of fenestration products (windows, doors, and skylights) shall be determined in accordance with NFRC 100 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled U-factor shall be assigned a default U-factor from Table C303.1.3(1) or Table C303.1.3(2). The solar heat gain coefficient (SHGC) and *visible transmittance* (VT) of glazed fenestration products (windows, glazed doors, and skylights) shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled SHGC or VT shall be assigned a default SHGC or VT from Table C303.1.3(3).

Table C303.1.3(1) - Default Glazed Fenestration U-Factor

FRAME TYPE	SINGLE PANE	DOUBLE PANE	SKYLIGHT	
			Single	Double
Metal	1.20	0.80	2.00	1.30
Metal with Thermal Break	1.10	0.65	1.90	1.10
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Glazed Block	0.60			

Table C303.1.3(2) - Default Door U-Factors

DOOR TYPE	U-FACTOR
Uninsulated Metal	1.20
Insulated Metal	0.60
Wood	0.50
Insulated, nonmetal edge, max 45% glazing, any glazing double pane	0.35

Table C303.1.3(3) - Default Glazed Fenestration SHGC and VT

	SINGLE GLAZED		DOUBLE GLAZED		GLAZED BLOCK
	Clear	Tinted	Clear	Tinted	
SHGC	0.8	0.7	0.7	0.6	0.6
VT	0.6	0.3	0.6	0.3	0.6

IECC - 2015

C303.1.3 Fenestration product rating.

U-factors of fenestration products (windows, doors, and skylights) shall be determined in accordance with NFRC 100.

Exception: Where required, garage door U-factors shall be determined in accordance with NFRC 100 or ANSI/DASMA 105.

U-factors shall be determined by an accredited, independent laboratory, and *labeled* and certified by the manufacturer. Products lacking such a labeled U-factor shall be assigned a default U-factor from Table C303.1.3(1) or Table C303.1.3(2). The solar heat gain coefficient (SHGC) and *visible transmittance* (VT) of glazed fenestration products (windows, glazed doors, and skylights) shall be determined in accordance with NFRC 200 by an accredited, independent laboratory, and labeled and certified by the manufacturer. Products lacking such a labeled SHGC or VT shall be assigned a default SHGC or VT from Table C303.1.3(3).

Table C303.1.3(1) - Default Glazed Fenestration U-Factor

FRAME TYPE	SINGLE PANE	DOUBLE PANE	SKYLIGHT	
			Single	Double
Metal	1.20	0.80	2.00	1.30
Metal with Thermal Break	1.10	0.65	1.90	1.10
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Glazed Block	0.60			

Table C303.1.3(2) - Default Door U-Factors

DOOR TYPE	U-FACTOR
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Table C303.1.3(3) - Default Glazed Fenestration SHGC and VT

	SINGLE GLAZED		DOUBLE GLAZED		GLAZED BLOCK
	Clear	Tinted	Clear	Tinted	
SHGC	0.8	0.7	0.7	0.6	0.6
VT	0.6	0.3	0.6	0.3	0.6