

## Thermotech Fiberglass Casement Windows - Thermal Performance

There are lots of Glazing options to choose from. Choose the order you would like the Energy Ratings to be sorted by (Whichever order is most important to you):

1. [Use for passive solar applications or where heating load reduction is the priority](#)
2. [Use where thermal comfort is the priority](#)
3. [Use where cooling load reduction is the priority](#)

See the [American Recommendations \(Energy Star\) for thermal performance](#) and compare them to the values below!

1. **Glazing Options in Energy Rating (ER) Order**  
[Use for passive solar applications or where heating load reduction is the priority](#)

Casement window 600mm x 1200mm (approx. 24" x 48")  
 -properties will vary with the size of the window

Glass Code* , Low-e type and location	Glass Properties				Window Properties			
	visible trans.	SHGC	U-value		SHGC	U-value		ER
			W/m^2K	Btu/ft^2		W/m^2K	Btu/ft^2	
322 LOF EA2, #3,#5	0.63	0.61	0.90	0.16	0.42	1.11	0.19	6
321 LOF EA2, #5	0.68	0.63	1.21	0.21	0.44	1.31	0.23	3
302 HM TC88, #3,#4	0.65	0.51	0.83	0.15	0.36	1.16	0.20	0
404 HM TC88, # 3- #6	0.52	0.42	0.67	0.12	0.29	1.04	0.18	-2
320 None	0.74	0.68	1.68	0.30	0.47	1.63	0.29	-2
321 AFG TiR, #5	0.65	0.47	1.04	0.18	0.33	1.20	0.21	-3
211 LOF EA2, #3	0.75	0.70	1.69	0.29	0.49	1.72	0.30	-3
322 AFG TiR, #2,#5	0.57	0.37	0.71	0.12	0.25	0.98	0.17	-3
321 AFG TiR, #2	0.65	0.43	1.09	0.19	0.30	1.25	0.22	-6
211 AFG TiR, #3	0.71	0.51	1.43	0.25	0.35	1.55	0.27	-9
211 AFG TiR, #2	0.71	0.46	1.43	0.25	0.32	1.55	0.27	-11
201 None (ref. only)	0.81	0.75	2.81	0.49	0.52	2.48	0.42	-17

\* Glass Code:

- 1st digit - number of layers of glazing
- 2nd digit - number of SuperSpacers
- 3rd digit - number of Low-e coatings and argon gas fills (assumed 90% argon, 10% air)

The number after the Low-e manufacturer's name shows the location of the Low-e coatings - surface #1 is the exterior surface

Window Properties were determined by FRAMEplus5.1, which incorporates VISION

U-values that conform to ISO 15099 (used in Europe), are typically 10% lower than those stated above and are available on request

Other types of Low-e glass are available on a custom or project basis

## 2. Glazing Options in U-value Order

Use where **thermal comfort** is the priority

Casement window 600mm x 1200mm (approx. 24" x 48")

-properties will vary with the size of the window

Glass Code* , Low-e type and location	Glass Properties				Window Properties			
	visible trans.	SHGC	U-value		SHGC	U-value		ER
			W/m <sup>2</sup> K	Btu/ft <sup>2</sup>		W/m <sup>2</sup> K	Btu/ft <sup>2</sup>	
322 AFG TiR, #2,#5	0.57	0.37	0.71	0.12	0.25	0.98	0.17	-3
404 HM TC88, #3- #6	0.52	0.42	0.67	0.12	0.29	1.04	0.18	-2
322 LOF EA2, #3,#5	0.63	0.61	0.90	0.16	0.38	1.11	0.19	6
302 HM TC88, #3,#4	0.65	0.51	0.83	0.15	0.36	1.16	0.20	0
321 AFG TiR, #5	0.65	0.47	1.04	0.18	0.33	1.20	0.21	-3
321 AFG TiR, #2	0.65	0.43	1.09	0.19	0.30	1.25	0.22	-6
321 LOF EA2, #5	0.68	0.63	1.21	0.21	0.44	1.31	0.23	3
211 AFG TiR, #3	0.71	0.51	1.43	0.25	0.35	1.55	0.27	-9
211 AFG TiR, #2	0.71	0.46	1.43	0.25	0.32	1.55	0.27	-11
320 None	0.74	0.68	1.68	0.30	0.47	1.63	0.29	-2
211 LOF EA2, #3	0.75	0.70	1.69	0.29	0.49	1.72	0.30	-3
201 None (ref. only)	0.81	0.75	2.81	0.49	0.52	2.48	0.42	-17

### The Fine Print:

\* Glass Code:

- 1st digit - number of layers of glazing
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### 3. Glazing Options in SHGC Order

Use where **cooling load reduction** is the priority

Casement window 600mm x 1200mm (approx. 24" x 48")

-properties will vary with the size of the window

Glass Code* , Low-e type and location	Glass Properties				Window Properties			
	visible trans.	SHGC	U-value		SHGC	U-value		ER
			W/m <sup>2</sup> K	Btu/ft <sup>2</sup>		W/m <sup>2</sup> K	Btu/ft <sup>2</sup>	
322 AFG TiR, #2,#5	0.57	0.37	0.71	0.12	0.25	0.98	0.17	-3
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322 LOF EA2, #3,#5	0.63	0.61	0.90	0.16	0.38	1.11	0.19	6
321 LOF EA2, #5	0.68	0.63	1.21	0.21	0.44	1.31	0.23	3
320 None	0.74	0.68	1.68	0.30	0.47	1.63	0.29	-2
211 LOF EA2, #3	0.75	0.70	1.69	0.29	0.49	1.72	0.30	-3
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