

# FR7650TSH Series

## 45-90 MINUTE FIRE-RATING

Optimum has revolutionized the construction industry by offering the most comprehensive line of steel fire rated windows. Today, we are one of the largest and most efficient manufacturers in our field, with fire rated products ranging from 20 to 90 minutes. Optimum's multiple window and door series are used in non-temperature rise applications and through various glazing options can be modified to address most fire rated applications.

### FEATURES

- 45 min rating w/ Wire Glass; 90 min rating w/ Ceramic Glazing
- All Cold Rolled sections are formed from GALVANIZED STEEL
- UL (Underwriters Laboratories) Listed and Certified
- EPDM and Silicone Pile Weather-Stripping
- Frames are coped and mechanically assembled
- 3 11/16" exterior frame depth
- Glazing is held in place via mechanically fastened steel glazing beads
- Can accommodate glazing ranging from 3/16" to 3/4" in O.A. thickness
- Insulated glazing available for this series
- All FR7650TSH windows will be factory glazed, unless ordered otherwise
- 1 Sweep lock at center of sash up to 36", two sweep locks thereafter
- 2 Lift handles per lower sash
- Balances are calibrated based upon sash weight
- Standard Optimum Window colors (refer to OWM color chart)
- Units arrive with installation straps (upon request)

### OPTIONS

- RAL colors available as option
- Non metallic color matches are optional & available upon request
- Steel Break Metal trim
- Half screens for operable sash is available
- Limited Operation Stops are available

### STANDARD WARRANTIES

- 10 year warranty on the finish
  - 1 year on the parts
- (Detail information on the warranties is available upon request)

### LISTINGS

Listed and labeled by Underwriters Laboratories Inc. and Underwriters' Laboratories of Canada. Test report for labeled 20/45/60/90 minute fire-rated frame assemblies is UL file NO. R-12349. Frame tests performed in accordance with ASTM E283, ASTM E331 & ASTM E330. Approved for use in New York City, MEA# 151-91-M

### GENERAL TEST RESULTS AND / ADIMENSIONAL LIMITATIONS

Hour Rating	Min Frame Dim.	Max Frame Dim.	(Air) ASTM E283 @ 6.25psf	(Water) ASTM E331 @5.0gph / ft2	Uniform Load ASTM E330	Max Vent Dim.	Max. Wire Gls Dim.	Max. Safety Gls	Max. Ceramic Gls.
1 ½	20" x 30"	56 ½" x 120"	.26 cfm / ft2	WTP @ 2.86 psf	112.5 psf	52" x 56"	n/a	optional	950 sq in
1	20" x 30"	56 ½" x 120"	.26 cfm / ft2	no	interior	52" x 56"	n/a	optional	2496 sq in
¾	20" x 30"	66" x 126"	.26 cfm / ft2	leakage	exterior	62" x 59"	1296 sq in	optional	2496 sq in
<b>U Factor</b>	<b>CRF</b>	<b>SHGC</b>	<b>VT</b>	<b>Glazing Configuration</b>					
.54	.26	.20	.42	¾" O.A. thickness consisting of 1/8" Solar Band 70 over 3/16" Firelite					
<b>This information is intended for general reference only. For current listing details, please call Optimum Window Mfg. Corp.</b>									

**\*Note: Test specimen size 48" x 96"**