

1450 Series 4" Thermal Fixed, Casement & Projected Windows







Product Information



WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

PERFORMANCE

The Series 1450 window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

<p>Fixed (Picture Window)</p>  <p>NAFS / AAMA 101 Test Size 60" x 99" Class: AW Performance Grade: 100 Air Infiltration: <0.0 CFM Water Infiltration Resistance: > 12 psf</p> <p>Can be Configured for ADA Compliance <input checked="" type="checkbox"/> Not-Applicable <input type="checkbox"/> Yes</p> <p>Can be configured to meet Windborne Debris Impact Resistance to ASTM E1886 / ASTM E1996 <input type="checkbox"/> Not Rated <input checked="" type="checkbox"/> Missile "D" <input type="checkbox"/> Missile "E"</p> <p>Product Type may be configured for Blast Resistant Installation <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes⁶</p>	 <p>$U_{COG}=0.20$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Low-E No.4 example: SNX 62/27 or Solarban70 + IS20 or Sungate Therml</p>
	<p>NFRC Size ¹ 47" x 59" $U_{Window}=0.34$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>
	<p>NAFS Size ³ 60" x 99" $U_{Window}=0.29$ Btu/h-ft²-°f⁴ CRF= 65 (AAMA 1503)⁵</p>
	 <p>$U_{COG}=0.24$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Uncoated example: SNX 62/27 or Solarban70</p>
	<p>NFRC Size ¹ 47" x 59" $U_{Window}=0.38$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>
	<p>NAFS Size ³ 60" x 99" $U_{Window}=0.34$ Btu/h-ft²-°f⁴ CRF= 65 (AAMA 1503)⁵</p>
	 <p>$U_{COG}=0.29$ Btu/hr-ft²-°F Double Silver Low-E #2 x 100% Air x Uncoated example: SN-68 or Solarban60</p>
	<p>NFRC Size ¹ 47" x 59" $U_{Window}=0.42$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>
	<p>NAFS Size ³ 60" x 99" $U_{Window}=0.38$ Btu/h-ft²-°f⁴ CRF= 65 (AAMA 1503)⁵</p>
	 <p>$U_{COG}=0.34$ Btu/hr-ft²-°F Single Silver Low-E #2 x 100% Air x Uncoated example: ES73 or Energy Advantage (Air, Aluminum Box-Spacer)</p>
	<p>NFRC Size ¹ 47" x 59" $U_{Window}=0.45$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>
	<p>NAFS Size ³ 60" x 99" $U_{Window}=0.41$ Btu/h-ft²-°f⁴ CRF= __ (AAMA 1503)⁵</p>
 <p>$U_{COG}=0.47$ Btu/hr-ft²-°F Uncoated x 100% Air x Uncoated example: Clear over Clear (Air, Aluminum Box-Spacer)</p>	
<p>NFRC Size ¹ 47" x 59" $U_{Window}=0.56$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>	
<p>NAFS Size ³ 60" x 99" $U_{Window}=0.52$ Btu/h-ft²-°f⁴ CRF= __ (AAMA 1503)⁵</p>	

This information is based on current product design, sealed dual glazing, warm edge spacers and testing standards. Solar Heat Gain Coefficient (SHGC) is not predicted since this is highly variable with Glass Tint & Low-E Coating Product. Please contact WINCO for project specific information.

¹ NFRC 101 Test & Rating Size

² Based on NFRC 100/200/500 Rating and LBNL Window 7.8 Simulations following NFRC Protocols

³ AAMA 101 (NAFS) Gateway Test Size

⁴ Based on LBNL Window Simulations following NFRC Protocols

⁵ AAMA 101 Test Size and AAMA 1503 Test Protocol

⁶ Blast Resistant Configuration is highly dependant on Product Size, Blast Design Load(s) and Project Specific Glass, Frame & Connection Response (Required Level of Protection, Allowable Hazard Level)

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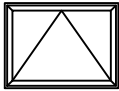





Product Information



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PERFORMANCE

The Series 1450 window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

<p>Project Out Awning (PO)</p>  <p>NAFS / AAMA 101 Test Size 60" x 36" Class: AW Performance Grade: 100 Air Infiltration: <0.02 CFM Water Infiltration Resistance: > 12 psf</p> <p>Can be Configured for ADA Compliance <input type="checkbox"/> Not-Applicable <input checked="" type="checkbox"/> Yes</p> <p>Can be configured to meet Windborne Debris Impact Resistance to ASTM E1886 / ASTM E1996 <input type="checkbox"/> Not Rated <input checked="" type="checkbox"/> Missile "D" <input checked="" type="checkbox"/> Missile "E"</p> <p>Product Type may be configured for Blast Resistant Installation <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes⁶</p>	 <p>$U_{COG}=0.20$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Low-E No.4 example: SNX 62/27 or Solarban70 + IS20 or Sungate Therml</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.45$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>	
	<p>NAFS Size³ 60" x 36" $U_{Window} = 0.39$ Btu/h-ft²-°f⁴ CRF= 59 (AAMA 1503)⁵</p>	
	 <p>$U_{COG}=0.24$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Uncoated example: SNX 62/27 or Solarban70</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.48$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>	
	<p>NAFS Size³ 60" x 36" $U_{Window} = 0.42$ Btu/h-ft²-°f⁴ CRF= 59 (AAMA 1503)⁵</p>	
	 <p>$U_{COG}=0.29$ Btu/hr-ft²-°F Double Silver Low-E #2 x 100% Air x Uncoated example: SN-68 or Solarban60</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.51$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>	
	<p>NAFS Size³ 60" x 36" $U_{Window} = 0.46$ Btu/h-ft²-°f⁴ CRF= 59 (AAMA 1503)⁵</p>	
	 <p>$U_{COG}=0.34$ Btu/hr-ft²-°F Single Silver Low-E #2 x 100% Air x Uncoated example: ES73 or Energy Advantage (Air, Aluminum Box-Spacer)</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.53$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>	
	<p>NAFS Size³ 60" x 36" $U_{Window} = 0.48$ Btu/h-ft²-°f⁴ CRF= __ (AAMA 1503)⁵</p>	
 <p>$U_{COG}=0.47$ Btu/hr-ft²-°F Uncoated x 100% Air x Uncoated example: Clear over Clear (Air, Aluminum Box-Spacer)</p>		
<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.61$ Btu/h-ft²-°f² CI= __ (NFRC 501)²</p>		
<p>NAFS Size³ 60" x 36" $U_{Window} = 0.58$ Btu/h-ft²-°f⁴ CRF= __ (AAMA 1503)⁵</p>		

This Information is based on current product design, sealed dual glazing, warm edge spacers and testing standards. Solar Heat Gain Coefficient (SHGC) is not predicted since this is highly variable with Glass Tint & Low-E Coating Product. Please contact WINCO for project specific information.

¹ NFRC 101 Test & Rating Size

² Based on NFRC 100/200/500 Rating and LBNL Window 7.8 Simulations following NFRC Protocols

³ AAMA 101 (NAFS) Gateway Test Size

⁴ Based on LBNL Window Simulations following NFRC Protocols

⁵ AAMA 101 Test Size and AAMA 1503 Test Protocol

⁶ Blast Resistant Configuration is highly dependant on Product Size, Blast Design Load(s) and Project Specific Glass, Frame & Connection Response (Required Level of Protection, Allowable Hazard Level)

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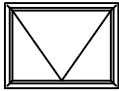





Product Information



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PERFORMANCE

The Series 1450 window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

<p>Project In Hopper (PI)</p>  <p>NAFS / AAMA 101 Test Size 60" x 36" Class: AW Performance Grade: 100 Air Infiltration: <0.01 CFM Water Infiltration Resistance: > 12 psf</p> <p>Can be Configured for ADA Compliance <input type="checkbox"/> Not-Applicable <input checked="" type="checkbox"/> Yes</p> <p>Can be configured to meet Windborne Debris Impact Resistance to ASTM E1886 / ASTM E1996 <input checked="" type="checkbox"/> Not Rated <input type="checkbox"/> Missile "D" <input type="checkbox"/> Missile "E"</p> <p>Product Type may be configured for Blast Resistant Installation <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes⁶</p>	 <p>$U_{COG}=0.20$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Low-E No.4 example: SNX 62/27 or Solarban70 + IS20 or Sungate Therml</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.45$ Btu/h-ft²-°f²</p>	Same performance as simulated PO Awning, NFRC does not differentiate between swing direction
	<p>NAFS Size³ 60" x 99" $U_{Window} = 0.39$ Btu/h-ft²-°f⁴</p>	CRF= 59 (AAMA 1503) ⁵
	 <p>$U_{COG}=0.24$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Uncoated example: SNX 62/27 or Solarban70</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.47$ Btu/h-ft²-°f²</p>	Same performance as simulated PO Awning, NFRC does not differentiate between swing direction
	<p>NAFS Size³ 60" x 99" $U_{Window} = 0.42$ Btu/h-ft²-°f⁴</p>	CRF= 59 (AAMA 1503) ⁵
	 <p>$U_{COG}=0.29$ Btu/hr-ft²-°F Double Silver Low-E #2 x 100% Air x Uncoated example: SN-68 or Solarban60</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.50$ Btu/h-ft²-°f²</p>	Same performance as simulated PO Awning, NFRC does not differentiate between swing direction
	<p>NAFS Size³ 60" x 99" $U_{Window} = 0.45$ Btu/h-ft²-°f⁴</p>	CRF= 59 (AAMA 1503) ⁵
	 <p>$U_{COG}=0.34$ Btu/hr-ft²-°F Single Silver Low-E #2 x 100% Air x Uncoated example: ES73 or Energy Advantage (Air, Aluminum Box-Spacer)</p>	
	<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.53$ Btu/h-ft²-°f²</p>	Same performance as simulated PO Awning, NFRC does not differentiate between swing direction
	<p>NAFS Size³ 60" x 99" $U_{Window} = 0.49$ Btu/h-ft²-°f⁴</p>	CRF= 59 (AAMA 1503) ⁵
 <p>$U_{COG}=0.47$ Btu/hr-ft²-°F Uncoated x 100% Air x Uncoated example: Clear over Clear (Air, Aluminum Box-Spacer)</p>		
<p>NFRC Size¹ 59" x 24" $U_{Window} = 0.60$ Btu/h-ft²-°f²</p>	Same performance as simulated PO Awning, NFRC does not differentiate between swing direction	
<p>NAFS Size³ 60" x 99" $U_{Window} = 0.57$ Btu/h-ft²-°f⁴</p>	CRF= -- (AAMA 1503) ⁵	

This Information is based on current product design, sealed dual glazing, warm edge spacers and testing standards. Solar Heat Gain Coefficient (SHGC) is not predicted since this is highly variable with Glass Tint & Low-E Coating Product. Please contact WINCO for project specific information.

¹ NFRC 101 Test & Rating Size

² Based on NFRC 100/200/500 Rating and LBNL Window 7.8 Simulations following NFRC Protocols

³ AAMA 101 (NAFS) Gateway Test Size

⁴ Based on LBNL Window Simulations following NFRC Protocols

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⁶ Blast Resistant Configuration is highly dependant on Product Size, Blast Design Load(s) and Project Specific Glass, Frame & Connection Response (Required Level of Protection, Allowable Hazard Level)

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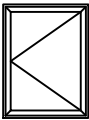





Product Information



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PERFORMANCE

The Series 1450 window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

 <p>Project Out Casement (POC)</p> <p>NAFS / AAMA 101 Test Size 36" x 60" Class: AW Performance Grade: 100 Air Infiltration: <0.07 CFM Water Infiltration Resistance: > 12 psf</p> <p>Can be Configured for ADA Compliance <input type="checkbox"/> Not-Applicable <input checked="" type="checkbox"/> Yes</p> <p>Can be configured to meet Windborne Debris Impact Resistance to ASTM E1886 / ASTM E1996 <input type="checkbox"/> Not Rated <input checked="" type="checkbox"/> Missile "D" <input checked="" type="checkbox"/> Missile "E"</p> <p>Product Type may be configured for Blast Resistant Installation <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes⁶</p>	 <p>$U_{COG}=0.20$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Low-E No.4 example: SNX 62/27 or Solarban70 + IS20 or Sungate Therml</p>
	<p>NFRC Size ¹ 24" x 59" $U_{Window} = 0.45$ Btu/h-ft²-°f² CI= __ (NFRC 501) ²</p>
	<p>NAFS Size ³ 36" x 60" $U_{Window} = 0.39$ Btu/h-ft²-°f⁴ CRF= 59 (AAMA 1503) ⁵</p>
	 <p>$U_{COG}=0.24$ Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Uncoated example: SNX 62/27 or Solarban70</p>
	<p>NFRC Size ¹ 24" x 59" $U_{Window} = 0.47$ Btu/h-ft²-°f² CI= __ (NFRC 501) ²</p>
	<p>NAFS Size ³ 36" x 60" $U_{Window} = 0.42$ Btu/h-ft²-°f⁴ CRF= 59 (AAMA 1503) ⁵</p>
	 <p>$U_{COG}=0.29$ Btu/hr-ft²-°F Double Silver Low-E #2 x 100% Air x Uncoated example: SN-68 or Solarban60</p>
	<p>NFRC Size ¹ 24" x 59" $U_{Window} = 0.50$ Btu/h-ft²-°f² CI= __ (NFRC 501) ²</p>
	<p>NAFS Size ³ 36" x 60" $U_{Window} = 0.45$ Btu/h-ft²-°f⁴ CRF= 59 (AAMA 1503) ⁵</p>
	 <p>$U_{COG}=0.34$ Btu/hr-ft²-°F Single Silver Low-E #2 x 100% Air x Uncoated example: ES73 or Energy Advantage (Air, Aluminum Box-Spacer)</p>
	<p>NFRC Size ¹ 24" x 59" $U_{Window} = 0.53$ Btu/h-ft²-°f² CI= __ (NFRC 501) ²</p>
	<p>NAFS Size ³ 36" x 60" $U_{Window} = 0.49$ Btu/h-ft²-°f⁴ CRF= -- (AAMA 1503) ⁵</p>
 <p>$U_{COG}=0.47$ Btu/hr-ft²-°F Uncoated x 100% Air x Uncoated example: Clear over Clear (Air, Aluminum Box-Spacer)</p>	
<p>NFRC Size ¹ 24" x 59" $U_{Window} = 0.60$ Btu/h-ft²-°f² CI= __ (NFRC 501) ²</p>	
<p>NAFS Size ³ 36" x 60" $U_{Window} = 0.49$ Btu/h-ft²-°f⁴ CRF= -- (AAMA 1503) ⁵</p>	

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