|  |  |  |
| --- | --- | --- |
| **A. General Information** | | |
| 01 | Conditioned Floor Area |  |
| 02 | 5% of the Conditioned Floor Area |  |
| 03 | Total Allowed Non-rated Site-built Fenestration Area |  |
| 04 | Proposed Area of Site-built Fenestration |  |

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| **B. Fenestration/Glazing Area** | |
| 01 | 02 |
| Tag/Identification | Area (ft2) |
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| **C. Default U-factor Using Equation NA6-1**  Equation NA6-1: UT = C1 + (C2 x UC) | | | | | | | |
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Tag/Identification | Product Type | Frame Type | C1 from Table  NA6-5 | C2 from Table  NA6-5 | Center of Glass  U-factor  (UC) | Source | Total Performance U-factor  (UT) |
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| **Table NA6-5 – U-factor Coefficients** | | | |
| Product Type | Frame Type | C1 | C2 |
| Site-built Vertical Fenestration | Metal | 0.311 | 0.872 |
| Metal Thermal Break | 0.202 | 0.867 |
| Nonmetal | 0.202 | 0.867 |
| Skylights with a Curb | Metal | 0.711 | 1.065 |
| Metal Thermal Break | 0.437 | 1.229 |
| Nonmetal | 0.437 | 1.229 |
| Skylights with no Curb | Metal | 0.195 | 0.882 |
| Metal Thermal Break | 0.310 | 0.878 |
| Nonmetal | 0.310 | 0.878 |

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| **D. Default Solar Heat Gain Coefficient (SHGC) Using Equation NA6-2**  Equation NA6-2: SHGCT = 0.08 + (0.86 x SHGCC) | | | |
| 01 | 02 | 03 | 04 |
| Tag/Identification | Center of Glass SHGC  (SHGCC) | Source | Total Performance SHGC  (SHGCT) |
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| **Documentation Author's Declaration Statement** | |
| 1. I certify that this Certificate of Compliance documentation is accurate and complete. | |
| Documentation Author Name: | Documentation Author Signature: |
| Company: | Signature Date: |
| Address: | CEA/HERS Certification Identification (if applicable): |
| City/State/Zip: | Phone: |
| **Responsible Person's Declaration statement** | |
| I certify the following under penalty of perjury, under the laws of the State of California:The information provided on this Certificate of Compliance is true and correct.I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).  1. That the energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 2. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. 3. I will ensure that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. | |
| Responsible Designer Name: | Responsible Designer Signature: |
| Company: | Date Signed: |
| Address: | License: |
| City/State/Zip: | Phone: |

**CF1R-ENV-05-E Instructions**

The Alternative Default Fenestration Procedure (ADFP) option is available only when nonrated site-built fenestration is being installed in a residential dwelling. For Residential site-built fenestration up to 250 ft2 or 5% time the conditioned floor area (CFA), whichever is greater shall meet sections §110.6(a)2 and §110.6(a)3.

This worksheet is used to calculate U-factor and solar heat gain coefficient (SHGC) for site-built fenestration/glazing.

**A. General Information**

1. Conditioned Floor Area: The total conditioned floor area (CFA) in square feet (ft2), as measured from the outside of the exterior walls.
2. 5% of the Conditioned Floor Area: This value is auto-filled based on the following equation (CFA x 0.05).
3. Total Allowed Non-rated Site-built Fenestration Area: This is the greater of 250 ft2 or 5% of the conditioned floor area.
4. Proposed Area of Site-built Fenestration: This value is auto-filled with the sum total of column B02.

**B. Fenestration/Glazing Area**

1. Tag/Identification: Auto-filled from CF1R.
2. Area (ft2): Auto-filled from CF1R.

**C. Default U-factor Using Equation NA6-1**

1. Tag/Identification: Auto-filled from Section B.
2. Product Type: Using the drop down menu, indicate the type of product (e.g., Site-Built Vertical Fenestration, Skylights with Curb, or Skylight with no Curb).
3. Frame Type: Using the drop down menu, indicate the type of frame (e.g., Metal, Metal Thermal Break, or Nonmetal).
4. Coefficient 1 (C1) from Table NA6-5: Based on the Product and Frame Type selected, enter the corresponding coefficient from Table NA6-5.
5. Coefficient 2 (C2) from Table NA6-5: Based on the Product and Frame Type selected, enter the corresponding coefficient from Table NA6-5.
6. Center of Glass U-factor: Enter the *Center of Glass U-factor*.
7. Source: Using the drop down menu, indicate where the *Center of Glass U-factor* information was derived from (e.g., Manufacturer’s spec sheet or CMAST).
8. Total Performance U-factor: This value is auto-filled based on Equation NA6-1 [UT = C1 + (C2 x UC)].

**D. Default Solar Heat Gain Coefficient (SHGC) Using Equation N6-2**

1. Tag/Identification: Auto-filled from Section B.
2. Center of Glass SHGC: Enter the *Center of Glass SHGC*.
3. Source: Using the drop down menu, indicate where the *Center of Glass SHGC* information was derived from (e.g., Manufacturer’s spec sheet or CMAST)
4. Total Performance SHGC: This value is auto-filled based on Equation NA6-2 [SHGCT = 0.08 + (0.86 x SHGCC)].

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| **A. General Information** | | |
| 01 | Conditioned Floor Area | <<pull from CF1R>> |
| 02 | 5% of the Conditioned Floor Area | <<calculated value:  A01 \* 0.05>> |
| 03 | Total Allowed Non-rated Site-built Fenestration Area | <<max of A02 or 250>> |
| 04 | Proposed Area of Site-built Fenestration | <<calculated value: sum of B02>>>> |

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| **B. Fenestration/Glazing Area**  <<if parent CF1R = ADD, ALT, or NCB, require one row for each fenestration product for which the Proposed U-factor Source or Proposed SHGC Source = NA6Equations;  Elseif parent CF1R = PRF, require one row for each fenestration product for which the UfactorSHGCSource = ADFP>> | |
| 01 | 02 |
| Tag/Identification | Area (ft2) |
| <<pull from CF1R>> | <<user input: number xxx.x>> |
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| **C. Default U-factor Using Equation NA6-1**  Equation NA6-1: UT = C1 + (C2 x UC)  <<if parent CF1R = ADD, ALT, or NCB, require one row for each fenestration product for which the Proposed U-factor Source = NA6Equations;  Elseif parent CF1R = PRF, require one row for each fenestration product for which the UfactorSHGCSource = ADFP; else display Section header and the default “This section does not apply” message>> | | | | | | | |
| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| Tag/Identification | Product Type | Frame Type | C1 from Table  NA6-5 | C2 from Table  NA6-5 | Center of Glass  U-factor  (UC) | Source | Total Performance U-factor  (UT) |
| <<reference value from B01>> | <<user pick from list:  \*Site-built Vertical Fenestration;  \*Skylights with a Curb;  \*Skylights with no Curb>> | <<user pick from list:  \*Metal; \*Metal Thermal Break;  \*Nonmetal>> | <<user input: number x.xxx>> | <<user input: number x.xxx>> | <<user input: number x.xxx>> | <<user pick from list:  \*Manufacturer spec sheet;  \*CMAST>> | <<calculated value:  C04 + (C05 \* C06)>> |
|  |  |  |  |  |  |  | x.xxx |

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| **Table NA6-5 – U-factor Coefficients** | | | |
| Product Type | Frame Type | C1 | C2 |
| Site-built Vertical Fenestration | Metal | 0.311 | 0.872 |
| Metal Thermal Break | 0.202 | 0.867 |
| Nonmetal | 0.202 | 0.867 |
| Skylights with a Curb | Metal | 0.711 | 1.065 |
| Metal Thermal Break | 0.437 | 1.229 |
| Nonmetal | 0.437 | 1.229 |
| Skylights with no Curb | Metal | 0.195 | 0.882 |
| Metal Thermal Break | 0.310 | 0.878 |
| Nonmetal | 0.310 | 0.878 |

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| **D. Default Solar Heat Gain Coefficient (SHGC) Using Equation NA6-2**  Equation NA6-2: SHGCT = 0.08 + (0.86 x SHGCC)  <<if parent CF1R = ADD, ALT, or NCB, require one row for each fenestration product for which the Proposed SHGC Source = NA6Equations;  Elseif parent CF1R = PRF, require one row for each fenestration product for which the UfactorSHGCSource = ADFP; else display Section header and the default “This section does not apply” message>> | | | |
| 01 | 02 | 03 | 04 |
| Tag/Identification | Center of Glass SHGC  (SHGCC) | Source | Total Performance SHGC  (SHGCT) |
| <<reference value from B01>> | <<User input: number x.xx>> | <<user pick from list:  \*Manufacturer spec sheet;  \*CMAST>> | <<calculated value:  0.08 + (0.86 \* D02)>> |
|  |  |  | x.xx |