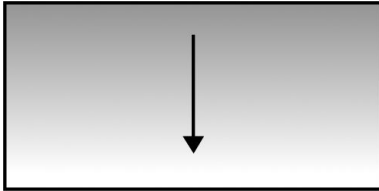
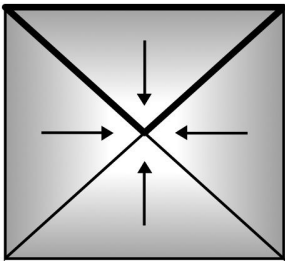


WAC 51-11C-610226 Tables A102.2.6—Assembly U-factors for roofs with insulation entirely above deck. Table A102.2.6(1)
Assembly U-factors for Roofs with Tapered Insulation Entirely Above Deck Single Slope Rectangular to One-side^{d,e,f,g,h}
(Uninterrupted by Framing)



		Rated R-value of Insulation at Maximum Condition (Rmax ^c)												
		1	5	10	15	20	25	30	35	40	45	50	55	60
Rated R-value of insulation at a Minimum Condition (Rmin ^b)	1	0.562	0.306	0.213	0.168	0.140	0.121	0.107	0.097	0.088	0.081	0.075	0.070	0.066
	5	-	0.173	0.125	0.101	0.086	0.076	0.068	0.062	0.057	0.053	0.049	0.046	0.044
	10	-	-	0.093	0.076	0.066	0.058	0.053	0.048	0.045	0.042	0.039	0.037	0.035
	15	-	-	-	0.063	0.055	0.049	0.045	0.041	0.038	0.036	0.034	0.032	0.030
	20	-	-	-	-	0.048	0.043	0.039	0.036	0.034	0.032	0.030	0.028	0.027
	25	-	-	-	-	-	0.039	0.035	0.033	0.031	0.029	0.027	0.026	0.025
	30	-	-	-	-	-	-	0.032	0.030	0.028	0.026	0.025	0.024	0.023
	35	-	-	-	-	-	-	-	0.028	0.026	0.025	0.023	0.022	0.021
	40	-	-	-	-	-	-	-	-	0.025	0.023	0.022	0.021	0.020
	45	-	-	-	-	-	-	-	-	-	0.022	0.021	0.020	0.019
	50	-	-	-	-	-	-	-	-	-	-	0.020	0.019	0.018
	55	-	-	-	-	-	-	-	-	-	-	-	0.018	0.017
60	-	-	-	-	-	-	-	-	-	-	-	-	0.016	

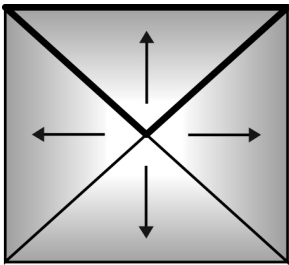
Table A102.2.6(2)
Assembly U-factors for Roofs with Tapered Insulation Entirely Above Deck Sloped Triangle (Roof with Center Drain)^{e,f,g,h,i}
(Uninterrupted by Framing)



		Rated R-value of Insulation at Maximum Condition (Rmax ^c)												
		1	5	10	15	20	25	30	35	40	45	50	55	60

Rated R-value of insulation at a Minimum Condition (R_{min}^b)	1	0.526	0.242	0.146	0.106	0.083	0.068	0.058	0.051	0.045	0.040	0.036	0.033	0.031
	5	-	0.173	0.112	0.084	0.068	0.057	0.049	0.044	0.039	0.035	0.032	0.030	0.028
	10	-	-	0.093	0.071	0.059	0.050	0.044	0.039	0.035	0.032	0.029	0.027	0.025
	15	-	-	-	0.063	0.053	0.045	0.040	0.035	0.032	0.029	0.027	0.025	0.023
	20	-	-	-	-	0.048	0.042	0.037	0.033	0.030	0.027	0.025	0.024	0.022
	25	-	-	-	-	-	0.039	0.034	0.031	0.028	0.026	0.024	0.022	0.021
	30	-	-	-	-	-	-	0.032	0.029	0.027	0.025	0.023	0.021	0.020
	35	-	-	-	-	-	-	-	0.028	0.026	0.024	0.022	0.021	0.019
	40	-	-	-	-	-	-	-	-	0.025	0.023	0.021	0.020	0.019
	45	-	-	-	-	-	-	-	-	-	0.022	0.020	0.019	0.018
	50	-	-	-	-	-	-	-	-	-	-	0.020	0.018	0.017
	55	-	-	-	-	-	-	-	-	-	-	-	0.018	0.017
	60	-	-	-	-	-	-	-	-	-	-	-	-	0.016

Table A102.2.6(3)
Assembly U-factors for Roofs with Tapered Insulation Entirely Above Deck Sloped Triangle (Roof with Perimeter Drains)^{e,f,g,h,i}
(Uninterrupted by Framing)



		Rated R-value of Insulation at Maximum Condition (R_{max}^e)												
		1	5	10	15	20	25	30	35	40	45	50	55	60
Rated R-value of insulation at a Minimum Condition (R_{min}^b)	1	0.562	0.242	0.146	0.106	0.083	0.068	0.058	0.051	0.045	0.040	0.036	0.033	0.031
	5	-	0.173	0.122	0.084	0.068	0.057	0.049	0.044	0.039	0.035	0.032	0.030	0.028
	10	-	-	0.093	0.071	0.059	0.050	0.044	0.039	0.035	0.032	0.029	0.027	0.025
	15	-	-	-	0.063	0.053	0.045	0.040	0.035	0.032	0.029	0.027	0.025	0.024
	20	-	-	-	-	0.048	0.042	0.037	0.033	0.030	0.027	0.025	0.024	0.022
	25	-	-	-	-	-	0.039	0.034	0.031	0.028	0.026	0.024	0.022	0.021
	30	-	-	-	-	-	-	0.032	0.029	0.027	0.025	0.023	0.021	0.020
	35	-	-	-	-	-	-	-	0.028	0.026	0.024	0.022	0.021	0.019
	40	-	-	-	-	-	-	-	-	0.025	0.023	0.021	0.020	0.019
	45	-	-	-	-	-	-	-	-	-	0.022	0.020	0.019	0.018
	50	-	-	-	-	-	-	-	-	-	-	0.020	0.018	0.017
	55	-	-	-	-	-	-	-	-	-	-	-	0.018	0.017
	60	-	-	-	-	-	-	-	-	-	-	-	-	0.016

Footnotes to Tables A102.2.6(1), A102.2.6(2), and A102.2.6(3):

- ^a R_{max} and R_{min} are determined along the linearly tapered cross section for the 6, respective minimum and maximum thickness values for the roof section being analyzed. For triangular roof sections.
- ^b R_{max} refers to the insulation value along the long edge of the triangle and R_{min} to the insulation at the point of the triangle which assumes that the insulation slopes to the center.
- ^c R_{max} refers to the insulation value at the point of the triangle and R_{min} to the insulation along the long edge of the triangle which assumes that the insulation slopes to the perimeter.
- ^d Effective U-factor for rectangular tapered insulation is calculated as follows:

$$R_{eff} = \frac{R_{max} - R_{min}}{\ln[R_{max}/R_{min}]}$$
- ^e Effective U-factor for triangular tapered insulation is calculated as follows:

$$R_{eff} = [2/(R_{max} - R_{min}) [1 + (R_{min}/R_{max} - R_{min})\ln(R_{min}/R_{max})]]^{-1}$$
- ^f Assembly U-factors include an exterior air film (R=0.17) and an interior air film, horizontal with heat flow up (R=0.61).
- ^g For effective U-factors of roof assemblies with different R_{max} or R_{min} values not listed in the tables interpolation is allowed.
- ^h This table shall only be applied to tapered insulation that is tapered along only one axis.

ⁱ In areas of differing insulation slopes/configurations, individual U-values shall be calculated and an area weighted U-value calculation shall be used to determine the effective value of the roof.

[Statutory Authority: RCW 19.27A.025, 19.27A.160, and 19.27.074. WSR 16-03-072, § 51-11C-610226, filed 1/19/16, effective 7/1/16. Statutory Authority: RCW 19.27A.020, 19.27A.025 and chapters 19.27 and 34.05 RCW. WSR 13-04-056, § 51-11C-610226, filed 2/1/13, effective 7/1/13.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.