

**Calculation of Snow Loads for Flat Roof as per ASCE/SEI 7-10 Chapter 7****Parameters of Snow Load**

Ground Snow Loads (According to Table 7-1 of ASCE/SEI 7), $p_g$ =		18.00 psf
Snow Density (According to Eq. 7.7-1 of ASCE/SEI 7), $\gamma$ =	$\text{MIN}(0.13 * p_g + 14; 30)$	= 16.34 lb/ft <sup>3</sup>
Terrain Category (According to Table 7-2 of ASCE/SEI 7), TER_CAT=	SEL("ASCE/Ter_Cat"; ID; )	= B
Exposure of Roof (According to Table 7-2 of ASCE/SEI 7), EX_RF=	SEL("ASCE/EX_RF"; ID; )	= Fully Exposed
Exposure Factor (According to Table 7-2 of ASCE/SEI 7), $C_e$ =		0.90
Thermal Factor (According to Table 7-3 of ASCE/SEI 7), $C_t$ =	SEL("ASCE/Ct"; ID; )	= 1.00
Risk Category (According to Table 1.5-1 of ASCE/SEI 7), RI_CAT=	SEL("ASCE/Risk_Cat"; ID; )	= II
Importance Factor (According to Table 1.5-2 of ASCE/SEI 7), $I_s$ =	TAB("ASCE/Is"; Is; RI_CAT=RI_CAT; )	= 1.00

**Snow Load for Flat Roof**

Min Snow Load (According to Cl. 7.3.4 of ASCE/SEI 7), $p_m$ =	$\text{IF}(p_g > 20; 20 * I_s; p_g * I_s)$	= 18.00 psf
Flat Roof Snow Load (According to Cl. 7.3 of ASCE/SEI 7), $p_f$ =	$0.7 * C_e * C_t * I_s * p_g$	= 11.34 psf

**Calculation Summary**

Min Snow Load, $p_m$ =	$p_m$	= 18.00 psf
Flat Roof Snow Load, $p_f$ =	$p_f$	= 11.34 psf