**Snow load calculation**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof slope</td>
<td>Snow load on roof (kN / sqm)</td>
</tr>
<tr>
<td>Characteristic value of snow on ground</td>
<td></td>
</tr>
</tbody>
</table>

**Roof type:** Monopitch roofs  
\[ \alpha = 36 \text{ deg} \]  

**Characteristic value of snow:**  
\[ s_k = 2 \text{ kN/m}^2 \]

**Exposure and thermal coefficients:**  
\[ C_e = 1 \]  
Normal topography

\[ C_t = 1 \]

**Roof shape coefficients:**  
For monopitch roof:  
\[ \mu_i (\alpha)^* = 0.640 \]  
per EN 1991-1-3  
Section 5.2 Table 5.2

*The values given in Table 5.2 apply when the snow is not prevented from sliding off the roof. Where snow fences or other obstructions exist or where the lower edge of the roof is terminated with a parapet, then the snow load shape coefficient should not be reduced below 0.8.*

**Load on roof (for the persistent/ transient design situation):**  
\[ s = \mu_i x C_e x C_t x s_k \]  
\[ s = 1.28 \text{ kN/m}^2 \]  
per EN 1991-1-3  
Section 5.2.3 (a) eq. 5.1

Special consideration should be given to the snow load shape coefficients to be used where the roof has an external geometry which may lead to increases in snow load, that are considered significant in comparison with that of a roof with linear profile.

**References:**  