

6. Result

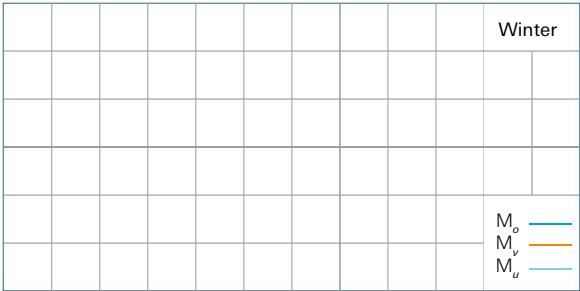
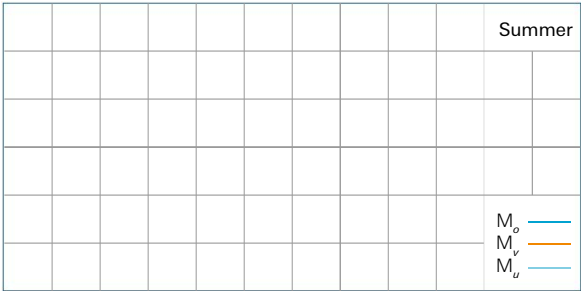
6. Result for Structural Member

Article		Length	cm
Depth	cm	Weight	N/m
$I_l$	cm <sup>4</sup>	$I_y$	cm <sup>4</sup>
$I_s$	cm <sup>4</sup>	$\lambda_{20}$	
$I_v$	cm <sup>4</sup>	$\lambda_{20}$	
$v$		$\lambda_{80}$	
Tributary Area	m <sup>2</sup>	$C_{pe}$	

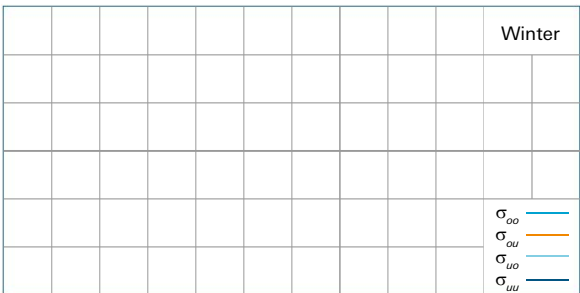
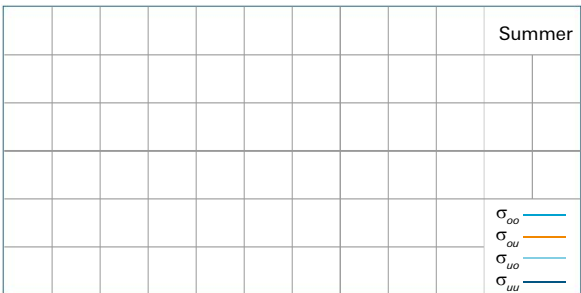
External load



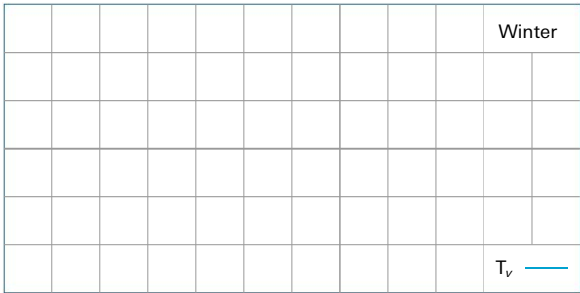
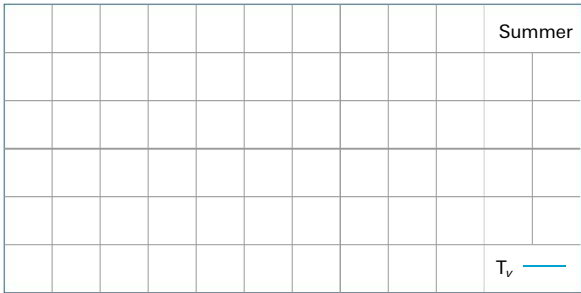
Bending Moment  $M_o$ /  $M_u$ /  $M_v$  (kN·cm)



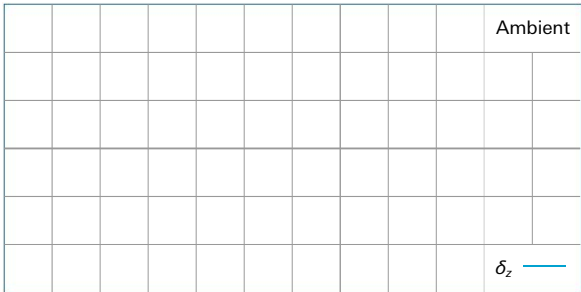
Metal Profile Normal Stresses  $\sigma_{oo}$ /  $\sigma_{ou}$ /  $\sigma_{uo}$ /  $\sigma_{uu}$  (N/mm<sup>2</sup>)



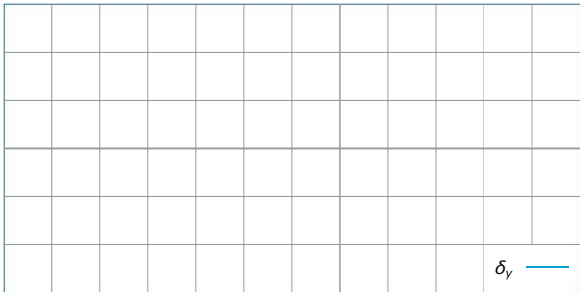
Thermal Isolator Shear Flow  $T_v$  (N/mm)



Out-of-Plane Deflection (mm)



In-Plane Deflection (mm)



\*Note: the curves shown above are caused by wind load and horizontal live load.

## Peak moments

		$kN \cdot cm$			
		$M_{omax}$	$M_{umax}$	$M_{vmax}$	$M_{temp}$
Summer	Wind + Live load				--
	Thermal	--	--	--	
Winter	Wind+ Live load				--
	Thermal	--	--	--	

## Peak stresses

		$N/mm^2$				$N/mm$
		$\sigma_{oo}$	$\sigma_{ou}$	$\sigma_{uo}$	$\sigma_{uu}$	$T_v$
Summer	Wind+ Live load					
	Thermal					
		$\Sigma(\sigma_{xx}\Phi)$				

Winter	Wind+ Live load					
	Thermal					
		$\Sigma(\sigma_{xx}\Phi)$				

$$\sigma_{max} / \beta_{0.2} =$$

$$T_{max} / (R^s / A_2) = \begin{cases} Summer \\ Winter \end{cases}$$

$$20 / R^T = \begin{cases} Summer \\ Winter \end{cases}$$

## Maximum deflection

Out-of-plane

$$\delta_z =$$

$$\delta_{z\_perm} =$$

$$\delta_z / \delta_{z\_perm} =$$

In-Plane

$$\delta_y =$$

$$\delta_{y\_perm} = \min(L / , 3mm) =$$

$$\delta_y / \delta_{y\_perm} =$$

$$1.1(T_{vw} + T_{vt}) / (R^s / A_2) = \begin{cases} Summer \\ Winter \end{cases}$$