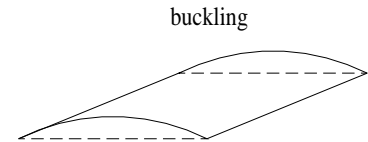


# Thermal expansion of copper sheet

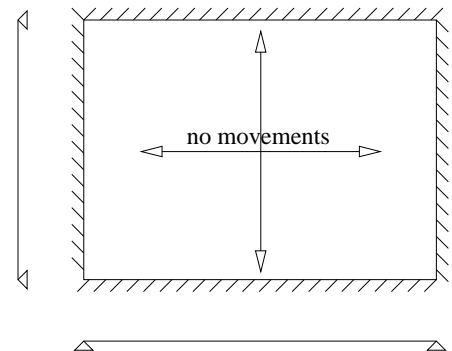
## Calculate design sheet temperature

Air temperature:	=	<input type="text"/>
Roof surface absorption factor	=	<input type="text"/>
Total solar incident radiation (W/m <sup>2</sup> )	=	<input type="text"/>
Surface coefficient of heat transfer at the surface (m <sup>2</sup> °C/W)	=	<input type="text"/>
Length of sheet (mm)	A =	<input type="text"/>
Width of sheet (mm)	B =	<input type="text"/>
Thickness of sheet (mm)	t =	<input type="text"/>
Sheet temperature at the time of installation (°C)	T <sub>1</sub> =	<input type="text"/>

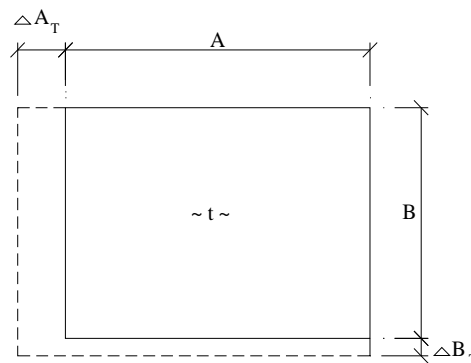
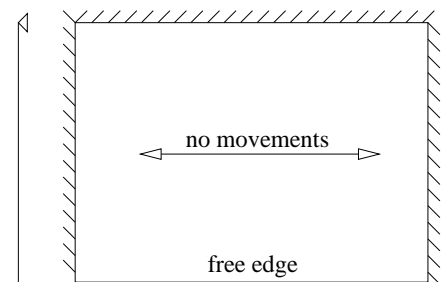
If edges of sheet are clamped, buckling of sheet may occur



hinged edges



hinged edges



**Calculate**

### Results:

Design sheet temperature

T<sub>2</sub> =  °C

Therman expansion

}	ΔT = <input type="text"/>	mm
	ΔA <sub>T</sub> = <input type="text"/>	
	ΔB <sub>T</sub> = <input type="text"/>	

These movements must be permitted by joints and details