

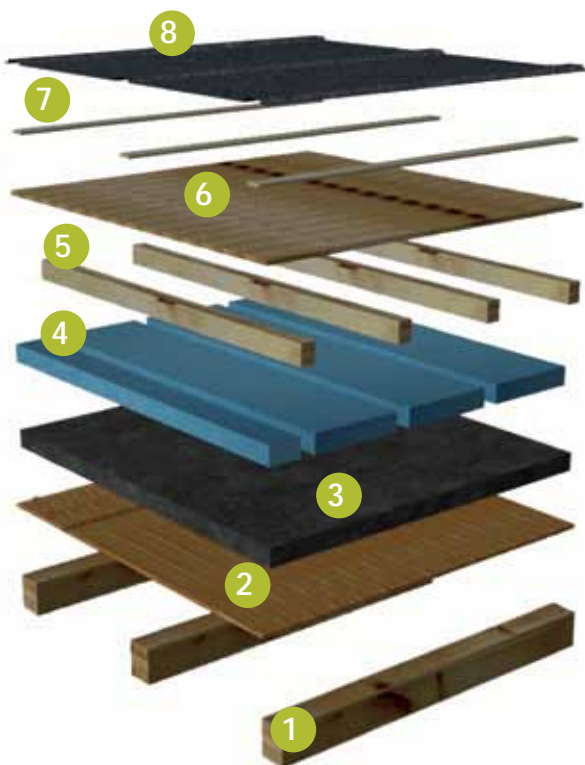
## Normal performance Roofing system



- 1 (\*) Wood trusses
- 2 (\*) Tapped wood planks.
- 3 (\*) EnviroCrete slab 10 cm
- 4 (\*) Timber battens
- 5 (\*) Rough timber planks.
- 6 (\*) Ondulated stealth cover
- 7 (\*) Waterproof membrane.



## High performance Insulated Roofing system

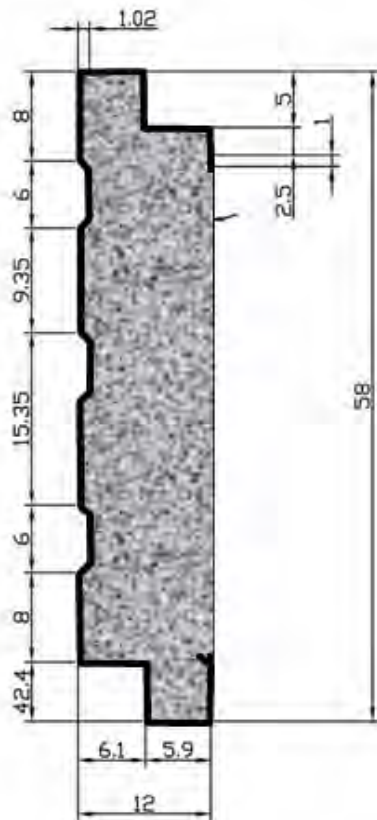
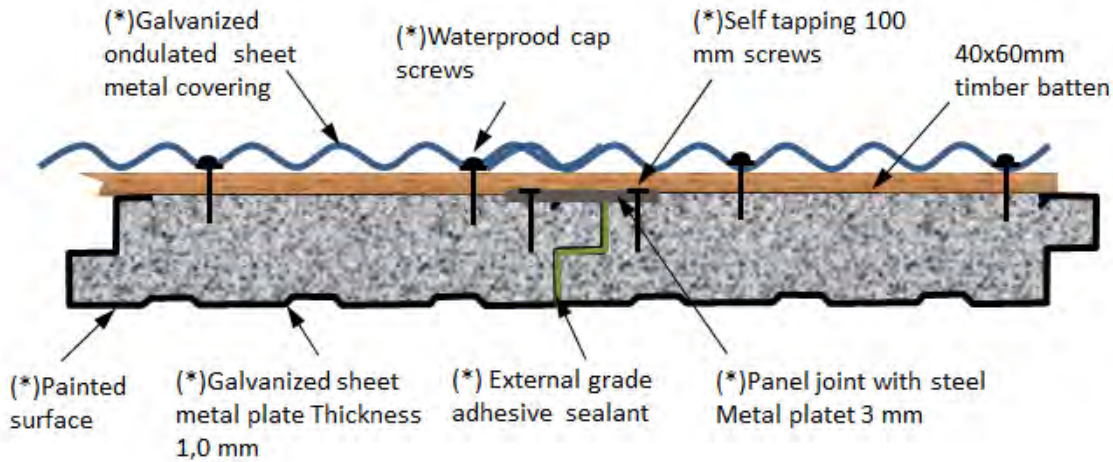


- 1 (\*) Wood beams.
- 2 (\*) Tapped wood planks.
- 3 (\*) EnviroCrete slab 10 cm
- 4 (\*) Additional insulation sheet
- 5 (\*) Timber battens.
- 6 (\*) Rough timber planks.
- 7 (\*) Strips ondulated sheath.
- 8 (\*) Waterproof membrane

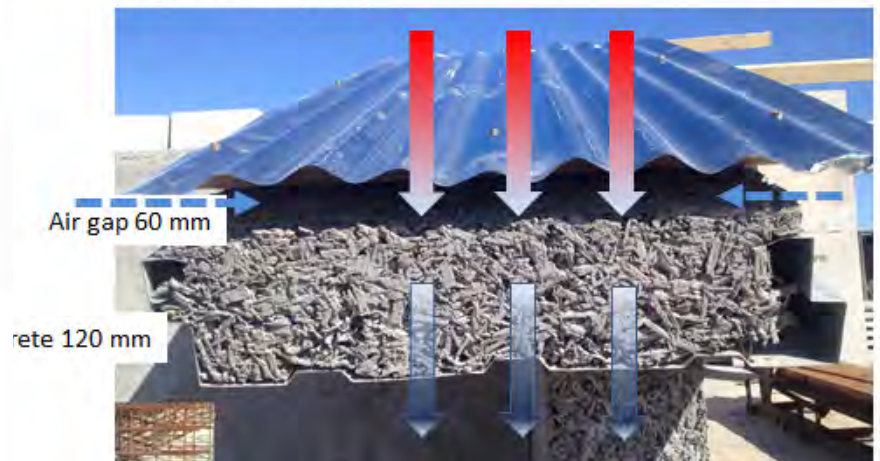
### Note

(\*) Size, quality and / or any other detail as per engineering specifications and client requirements.

## VENTILATED Composite Roofing system



High thermal inertia attenuation factor of temperature amplitude **Thermal inversion (displacement) of 14 hours** for heat from outside to get inside

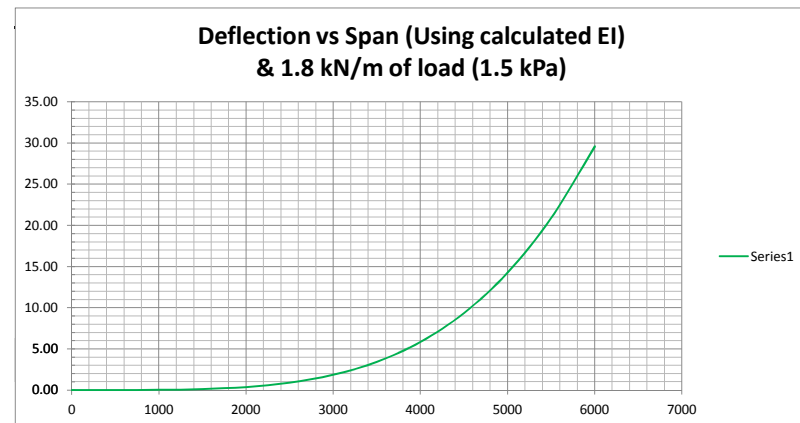
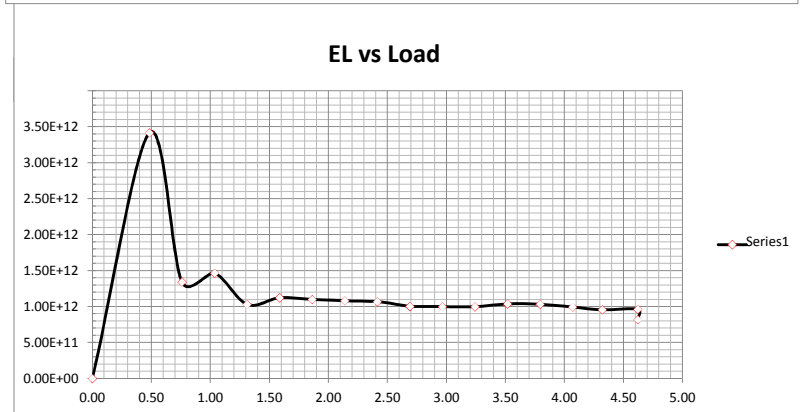
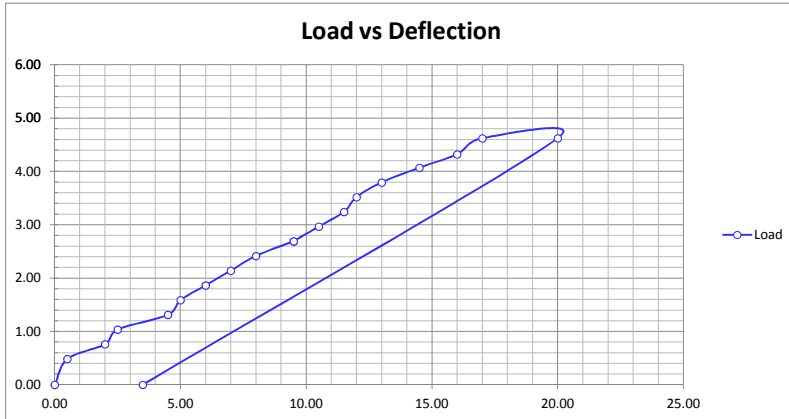


Galvanized sheet metal plate  
Type: SG250Z-360  
Thickness 1,0 mm  
Dimensions 580 x 120 mm

### Key Features

1. Composite roof with air gap for natural ventilation and cooling
2. Roof slabs are can also be utilized as deck slabs because proven load bearing
3. 14 hour thermal displacement high thermal inertia (affordable costing)

## Test results of roof panels



w Load N/mm	Span mm	Δ mm	EI (N.mm²)
1.8	0	0.00	1.03E+12
1.8	500	0.00	
1.8	1000	0.02	
1.8	1500	0.12	
1.8	2000	0.37	
1.8	2500	0.89	
1.8	3000	1.85	
1.8	3500	3.42	
1.8	4000	5.84	
1.8	4500	9.36	
1.8	5000	14.26	
1.8	5500	20.88	
1.8	6000	29.58	

1.2 m WIDE PANEL

$$\Delta = \frac{5}{384} * \frac{(w * L^4)}{EI}$$

EI	Deflection			Load		Equivalent UDL N/mm	EI N.mm²
	Left mm	Right mm	Avg mm	kg	kg		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00E+00
	0.00	1.00	0.50	196.00	0.48	0.48	3.42E+12
	1.00	3.00	2.00	308.00	0.76	0.76	1.34E+12
	2.00	3.00	2.50	420.00	1.03	1.03	1.46E+12
	4.00	5.00	4.50	532.00	1.31	1.31	1.03E+12
	4.00	6.00	5.00	644.00	1.59	1.59	1.12E+12
	5.00	7.00	6.00	756.00	1.86	1.86	1.10E+12
	6.00	8.00	7.00	868.00	2.14	2.14	1.08E+12
	7.00	9.00	8.00	980.00	2.41	2.41	1.07E+12
	8.00	11.00	9.50	1092.00	2.69	2.69	1.00E+12
	8.00	11.00	9.50	1092.00	2.69	2.69	1.00E+12
	9.00	12.00	10.50	1204.00	2.97	2.97	9.99E+11
	10.00	13.00	11.50	1316.00	3.24	3.24	9.97E+11
	10.00	14.00	12.00	1428.00	3.52	3.52	1.04E+12
	11.00	15.00	13.00	1540.00	3.79	3.79	1.03E+12
	13.00	16.00	14.50	1652.00	4.07	4.07	9.93E+11
	14.00	18.00	16.00	1754.00	4.32	4.32	9.55E+11
	16.00	18.00	17.00	1876.00	4.62	4.62	9.62E+11
	18.00	22.00	20.00	1876.00	4.62	4.62	8.17E+11
	3.00	4.00	3.50	0.00	0.00	0.00	0.00E+00

**AVG EI 1.03E+12**

### Key Features

1. Composite slab 4,5 meter long are tested to **carry load 350kg/m²**
2. Roof slabs are can **also be utilized as deck slabs** because proven load bearing