

We are frequently asked to provide either calculations or independent assurance that the CABP roof and wall cladding systems meet the claimed U-values and at the same time confirm the system weights. The information stated below confirms both weights and U-values, commencing with the weight of single skin sheeting;

## Single Skin Cladding

Profile Reference	Nominal Thickness / Material	Weight (kg/m <sup>2</sup> )
CA LT 17 1000S	0.4mm steel	3.46
	0.7mm steel	6.05
CA 32 1000W	0.5mm steel	4.90
	0.7mm steel	6.87
CA 32 1000R	0.7mm steel	6.87
CA 45 1000W	0.7mm steel	6.87
CA ARC 50 930	0.67mm steel	7.08
River-Therm® RT-500	0.55mm steel	6.28
	0.8mm aluminium	3.20

## Twin-Therm®

The Twin-Therm® BBA (British Board of Agrément) Certificate No. 07/4428: Detail Sheet 2 was issued in May 2007. The certificate confirms that the Twin-Therm® roof system has been independently approved in terms of U-value calculation.

The BBA Agrément Certificate No. 07/4428, Detail Sheet 2 is available in hard copy or electronic format. Contact CA Building Products Technical Department for assistance.

The following information represents the CABP roof and wall cladding system build up including insulation and spacer system references, plus the average U-values based on varying purlin/rail spans together with typical system weights.

Further information can be found on the following CABP Technical Notes;

- TN-05: Therma-block Fasteners
- TN-06: Therma-quilt Insulation Parameters
- TN-08: Therma-bars
- TN-11: Fasteners - Pull Out & Pull Over Values
- TN-12: System Life
- TN-24: Non-Fragility

## Twin-Therm® Roof

Twin-Therm® complete with CA LT 17 1000S 0.4mm thick nom. liner panel assembly and CA 32 1000R 0.7mm thick nom. external weather skin;

Designed U-value: 0.25W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.25	13.59
1500	0.25	13.80
1200	0.25	14.11
1000	0.27	14.41

Twin-Therm® complete with CA 32 1000RL 0.7mm thick nom. liner panel assembly and CA 32 1000R 0.7mm thick nom. external weather skin;

Designed U-value: 0.25W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.25	17.00
1500	0.25	17.21
1200	0.25	17.52
1000	0.27	17.82

Designed U-value: 0.20W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.20	18.50
1500	0.20	18.80
1200	0.21	19.26
1000	0.24	19.72

Designed U-value: 0.16W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.16	19.16
1500	0.16	19.47
1200	0.16	19.94
1000	0.16	20.41

## Twin-Therm® Wall

The Twin-Therm® wall cladding system complete with CA LT 17 1000S 0.4mm thick nom. liner panel assembly and CA 32 1000W 0.5mm thick nom. external weather skin;

### Designed U-value: 0.35W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.35	11.35
1500	0.35	11.55
1200	0.36	11.85
1000	0.36	12.14

### Designed U-value: 0.30W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.30	10.83
1500	0.30	10.97
1200	0.30	11.21
1000	0.31	11.45

### Designed U-value: 0.25W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.25	11.57
1500	0.25	11.77
1200	0.25	12.08
1000	0.26	12.39

### Designed U-value: 0.20W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.20	13.12
1500	0.20	13.43
1200	0.20	13.88
1000	0.20	14.34

\* Add Extra 1.96kg/m<sup>2</sup> for 0.7mm thick external sheet  
Add extra 2.62kg/m<sup>2</sup> for 0.7mm thick liner panel

## Twin-Therm® Firewall

The Twin-Therm® Firewall cladding system complete with TB10 (Thermal-break strip), CA LT 17 1000S 0.4mm thick nom. liner panel assembly and CA 32 1000W 0.5mm thick nom. external weather skin;

### Designed U-value: 0.35W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.35	12.52
1500	0.35	12.72
1200	0.36	13.03
1000	0.36	13.34

### Designed U-value: 0.30W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.30	12.98
1500	0.30	13.14
1200	0.30	13.39
1000	0.31	13.64

### Designed U-value: 0.25W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.25	14.06
1500	0.25	14.27
1200	0.25	14.60
1000	0.26	14.92

### Designed U-value: 0.20W/m<sup>2</sup>K

Purlin Centres	U-value (W/m <sup>2</sup> K)	Weight (kg/m <sup>2</sup> )
1800	0.20	17.50
1500	0.20	17.81
1200	0.20	18.28
1000	0.20	18.75

\* Add Extra 1.96kg/m<sup>2</sup> for 0.7mm thick external sheet  
Add extra 2.62kg/m<sup>2</sup> for 0.7mm thick liner panel

## River-Therm®

The River-Therm® BBA (British Board of Agrément) Certificate No. 07/4428: Detail Sheet 3 was issued in May 2007. The certificate confirms that the River-Therm® roof system has been independently approved in terms of U-value calculation.

The BBA Agrément Certificate No. 07/4428, Detail Sheet 3 is available in hard copy or electronic format. Contact CA Building Products Technical Department for assistance.

River-Therm® complete with CA 32 1000RL 0.7mm thick nom. liner panel assembly and RT-500 0.8mm thick nom. aluminium or 0.55mm thick nom. steel external weather skin;

**Designed U-value: 0.25W/m²K**

Purlin Centres	U-value (W/m²K)	Weight (kg/m²) 0.8 Alum.	Weight (kg/m²) 0.55 Steel
1800	0.25	13.68	16.72
1500	0.25	13.92	16.96
1200	0.26	14.28	17.32
1000	0.26	14.64	17.68

**Designed U-value: 0.20W/m²K**

Purlin Centres	U-value (W/m²K)	Weight (kg/m²) 0.8 Alum.	Weight (kg/m²) 0.55 Steel
1800	0.20	14.69	17.73
1500	0.20	14.98	18.02
1200	0.21	15.41	18.46
1000	0.21	15.85	18.90

**Designed U-value: 0.16W/m²K**

Purlin Centres	U-value (W/m²K)	Weight (kg/m²) 0.8 Alum.	Weight (kg/m²) 0.55 Steel
1800	0.16	15.34	18.39
1500	0.16	15.64	18.69
1200	0.16	16.09	19.14
1000	0.16	16.54	19.58

## SolarWall®

The SolarWall® perforated Transpired Solar Collector system complete with insulated galvanised steel spacer system and CA 32 1000W SW 0.7mm thick nom. external weather skin, i.e. excluding Twin-Therm® insulated wall construction;

**Weight (kg/m²)  
Vertical External Sheet Orientation**

Rail Centres	Option 1	Option 2	Option 3	Option 4
1800	9.62	9.58	9.69	9.87
1500	10.17	10.12	10.26	10.47
1200	11.00	10.93	11.11	11.37
1000	11.83	11.75	11.96	12.28

**Weight (kg/m²)  
Horizontal External Sheet Orientation**

Rail Centres	Option 1	Option 2	Option 3
1800	9.27	9.23	9.76
1500	9.43	9.38	10.01
1200	9.66	9.60	10.39
1000	9.90	9.82	10.76