2 July 2018



ACRYLIC TECHNOLOGIES AUSTRALIA

UNIT 4, 128 STATION ROAD SEVEN HILLS

C-COAT TEMPERATURE TESTING

REF: TIATA002

2 July 2018

Acrylic Technologies Australia Unit 4, 128 Station Road Seven Hills NSW

Trackie Industries recently carried out temperature data logging to review the performance of C-Coat surface applied thermal coating.

We made up 3 individual Styrofoam spaces, 1m cubed each with 4 sealed sides and a sealed floor. We then roofed all 3 boxes with the same Colourbond Trimdeck metal in white finish. The first box consisted of just the metal roof with no insulation and was marked 'Plain'. The second box had the roof underside lined with PerformINS R3, 130mm thick glass wool insulation with silver foil backing and was marked 'Classic'. The third box was coated on the top side with the C-Coat product to a nominal thickness of 0.5mm in the initial test and 1.5mm in the subsequent test. This box was marked 'C-Coat'.

We ran each test over several days using Onset Bluetooth temperature data loggers. Each box was fitted with an external roof surface temperature probe, an internal under roof surface temperature probe and a space temperature sensor located in the centre of the floor of each box. An ambient temperature sensor was set centrally to the boxes that were placed in direct sunlight for the tests and were not disturbed.

The tests took place at Seven Hills under the supervision of Trackie Industries.

The temperature data was collected and tabulated as per the 2 tables below.



TIATA001

Temperature tes	ting: Plain roof, I	R3 130mm glass wo	ood insulated roof an	d C-Coat 0.5mm applie	d to the top side.					
Day 1.										
	Ambient Temp	Plain roof surface	Plain roof underside	Plain roof space temp	Classic insulation surface	Classic insulation underside	Classic insulation space temp	C-Coat 0.5mm surface	C-Coat 0.5mm underside	C-Coat 0.5mm space temp
23/05/2018 8:00	11.58	10.81	10.85	11.45	10.55	11.75	12.31	10.34	9.99	10.85
23/05/2018 8:30	12.35	12.35	12.4	12.01	12.01	12.1	12.44	11.97	11.41	11.45
23/05/2018 9:00	13.25	18.74	16.6	13.98	16.3	13.34	13.21	16.43	14.54	12.91
23/05/2018 9:30	14.63	23.89	23.68	17.72	24.36	16.34	14.97	21.23	18.23	15.44
23/05/2018 10:00	18.02	27.45	27.5	21.23	28.31	20.03	17.54	24.19	21.06	18.06
23/05/2018 10:30	21.36	29.77	29.98	24.54	31.61	24.06	21.06	26.25	23.29	20.42
23/05/2018 11:00	23.25	33.2	33.42	26.72	34.19	25.95	23.16	28.65	25.14	21.96
23/05/2018 11:30	24.19	34.23	34.57	28.14	35.69	26.34	23.68	29.73	26.3	23.21
23/05/2018 12:00	23.16	27.63	26.08	27.8	36.81	26.25	23.59	30.89	27.37	23.51
23/05/2018 12:30	26.34	34.92	35.18	28.57	35.65	24.88	23.21	30.67	27.54	25.14
23/05/2018 13:00	29.3	36.51	36.93	29.56	38.26	26.34	23.64	32.22	28.83	25.82
23/05/2018 13:30	30.89	35	35.69	29.86	36.76	27.11	24.32	31.27	28.14	26.3
23/05/2018 14:00	29.43	28.35	27.02	29.17	35.26	27.07	24.54	29.6	26.81	25.27
23/05/2018 14:30	25.57	23.94	24.06	25.82	23.38	25.14	23.84	22.41	21.88	23.42
23/05/2018 15:00	23.85	21.7	21.88	23.03	21.7	22.95	22.26	20.89	20.46	21.32
23/05/2018 15:30	22.52	20.12	20.2	21.1	19.73	21.15	20.85	19.9	19.56	20.03
23/05/2018 16:00	21.79	18.02	17.97	19.56	17.46	19.9	19.82	17.72	17.59	18.96
23/05/2018 16:30	21.02	17.5	17.5	18.53	17.59	19.09	19.09	17.59	17.46	18.1
23/05/2018 17:00	20.29	16.94	16.86	17.93	16.77	18.53	18.53	16.99	16.9	17.72
23/05/2018 17:30	19.39	15.4	15.4	17.03	14.93	17.76	17.97	15.48	15.53	16.86
23/05/2018 18:00	18.27	13.9	13.9	16.08	13.12	16.9	17.24	13.94	14.03	15.91
Day 2.										
Day 2.	Ambient Temp	Plain roof surface	Plain roof underside	Plain roof space temp	Classic insulation surface	Classic insulation underside	Classic insulation space temp	C-Coat 0.5mm surface	C-Coat 0.5mm underside	C-Coat 0.5mm space temp
Day 2. 24/05/2018 8:00	Ambient Temp 14.54	Plain roof surface 15.87	Plain roof underside 15.83	Plain roof space temp 16.08	Classic insulation surface 15.31	Classic insulation underside 14.58	Classic insulation space temp 14.84	C-Coat 0.5mm surface 15.96	C-Coat 0.5mm underside 15.96	C-Coat 0.5mm space temp 16.04
Day 2. 24/05/2018 8:00 24/05/2018 8:30	Ambient Temp 14.54 14.75	Plain roof surface 15.87 16.21	Plain roof underside 15.83 16.21	Plain roof space temp 16.08 16.26	Classic insulation surface 15.31 15.96	Classic insulation underside 14.58 14.84	Classic insulation space temp 14.84 15.01	C-Coat 0.5mm surface 15.96 16.17	C-Coat 0.5mm underside 15.96 16.26	C-Coat 0.5mm space temp 16.04 16.21
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00	Ambient Temp 14.54 14.75 15.48	Plain roof surface 15.87 16.21 16.77	Plain roof underside 15.83 16.21 16.81	Plain roof space temp 16.08 16.26 16.64	Classic insulation surface 15.31 15.96 17.41	Classic insulation underside 14.58 14.84 15.44	Classic insulation space temp 14.84 15.01 15.44	C-Coat 0.5mm surface 15.96 16.17 16.6	C-Coat 0.5mm underside 15.96 16.26	C-Coat 0.5mm space temp 16.04 16.21 16.43
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 9:30	Ambient Temp 14.54 14.75 15.48 15.06	Plain roof surface 15.87 16.21 16.77 23.68	Plain roof underside 15.83 16.21 16.81 23.38	Plain roof space temp 16.08 16.26 16.64 17.93	Classic insulation surface 15.31 15.96 17.41 24.62	Classic insulation underside 14.58 14.84 15.44 16.73	Classic insulation space temp 14.84 15.01 15.44 15.78	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 9:30 24/05/2018 10:00	Ambient Temp 14.54 14.75 15.48 15.06 18.4	Plain roof surface 15.87 16.21 16.77 23.68 27.97	Plain roof underside 15.83 16.21 16.81 23.38 28.05	Plain roof space temp 16.08 16.26 16.64 17.93 21.02	Classic insulation surface 15.31 15.96 17.41 24.62 29.64	Classic insulation underside 14.58 14.84 15.44 16.73 19.69	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:30 24/05/2018 9:30 24/05/2018 10:00 24/05/2018 10:30	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52	C-Coat 0.5mm underside 15.96 16.26 18.1 18.1 21.06 18.74	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:30 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:00	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06 18.74 21.19	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:30 24/05/2018 11:30	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83	Plain roof surface 15.87 16.21 23.68 27.97 20.98 24.75 29.6	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.66	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06 18.74 21.19 23.16	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:00 24/05/2018 11:30 24/05/2018 12:00	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.24	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 25.91	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.66 22.18	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84	C-Coat 0.5mm underside 15.96 16.26 18.1 21.06 18.74 21.19 23.16 23.25	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:30 24/05/2018 11:30 24/05/2018 12:00 24/05/2018 12:30	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.73	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42 23.29	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.66 21.16 22.18 22.01	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29 20.42	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69	C-Coat 0.5mm underside 15.96 16.26 18.1 21.06 18.74 21.19 23.16 23.25 21.96	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 9:30 24/05/2018 10:30 24/05/2018 10:30 24/05/2018 11:30 24/05/2018 12:30 24/05/2018 12:30 24/05/2018 13:00	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42 23.29 22.61	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.36 21.36 22.18 22.01 21.66	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29 20.42 20.29	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65	C-Coat 0.5mm underside 15.96 16.26 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.93
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:30 24/05/2018 11:30 24/05/2018 12:30 24/05/2018 13:00 24/05/2018 13:00	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 22.54	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08 29.43	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42 23.29 22.61 22.35	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.36 22.18 22.01 21.66 22.17 21.66	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 20.29 20.42 20.29 20.42 20.29	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58	C-Coat 0.5mm underside 15.96 16.26 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24 24.71	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.83 20.83 20.83 20.83 20.83 20.83 20.83 20.83 20.83 20.83 20.83 20.83 20.93 20.83 20.93 20.83 20.93
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:00 24/05/2018 11:30 24/05/2018 12:30 24/05/2018 12:30 24/05/2018 13:30 24/05/2018 13:30 24/05/2018 14:00	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 23.98	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.66 25.52 23.16 26.08 29.43 25.27	Plain roof underside 15.83 16.21 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07 23.89	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42 23.29 22.61 22.35 23.46 22.35 23.46	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63 28.7	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.66 22.18 22.01 21.66 21.75 21.75 23.12	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29 20.42 20.29 20.42 20.29 20.33 21.19	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58 25.61	C-Coat 0.5mm underside 15.96 16.26 16.6 18.74 21.19 23.16 23.25 21.96 24.24 24.71 23.46	C-Coat 0.5mm space temp 16.04 16.43 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.83 20.93 20.83 20.93 20.83 20.84 20.93 20.85 20.93 20.85 20.93 20.85 20.93 20.85 20.93 20.85 20.93 20.93 20.85 20.93 20.95
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:30 24/05/2018 12:30 24/05/2018 12:30 24/05/2018 12:30 24/05/2018 13:30 24/05/2018 14:30	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 23.98 22.26	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08 29.43 25.27 21.79	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07 23.89 21.96 21.96 24.97 25.91 23.72 26.77 20.97 2	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 23.42 23.29 22.61 22.35 23.46 22.35 23.46 22.09	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63 30.63 28.7 21.66	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.36 21.36 22.18 22.01 21.66 21.75 23.12 23.12	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29 20.42 20.29 20.42 20.29 20.33 21.19 21.15	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58 25.61 21.15	C-Coat 0.5mm underside 15.96 16.26 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24 24.71 23.46 20.46	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.8 21.4 20.85 20
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:30 24/05/2018 11:30 24/05/2018 12:30 24/05/2018 12:30 24/05/20	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 23.98 22.26 21.19	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08 29.43 25.27 21.79 19.65	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07 23.89 21.96 1.977	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42 23.29 22.61 22.35 23.46 22.09 22.61 22.35 23.46 22.09	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63 28.7 21.66 19.77	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.36 21.36 22.18 22.01 21.66 21.75 23.12 22.31 22.31	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29 20.42 20.29 20.42 20.29 20.33 21.19 21.15 20.16	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58 25.61 21.15 19.43	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24 24.71 23.46 20.46 19.17 10.75 1	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.8 21.4 20.85 20.85 20.89 21.4 20.85 20.
Day 2. 24/05/2018 8:00 24/05/2018 8:00 24/05/2018 9:00 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:00 24/05/2018 11:30 24/05/2018 12:00 24/05/2018 13:00 24/05/2018 13:00 24/05/2018 13:00 24/05/2018 13:00 24/05/2018 13:00 24/05/2018 15:00 24/05/2018 15:00	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 23.98 22.26 21.19 20.03	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08 29.43 25.27 21.79 19.65 18.36	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07 23.89 21.96 19.77 18.4 17.23 18.4	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42 23.29 22.61 22.35 23.46 22.09 20.76 19.43	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63 28.7 21.66 19.77 18.19	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.36 22.18 22.01 21.66 22.18 22.01 21.66 21.75 23.12 22.31 20.8 19.65	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 20.29 20.42 20.29 20.42 20.29 20.33 21.19 21.15 20.16 20.16	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58 25.61 21.15 19.43 18.23	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24 24.71 23.46 20.46 19.17 18.02	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.8 21.4 20.85 21.4 20.85 19.77 18.74
Day 2. 24/05/2018 8:00 24/05/2018 8:30 24/05/2018 9:00 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 11:00 24/05/2018 11:00 24/05/2018 11:20 24/05/2018 12:00 24/05/2018 13:00 24/05/2018 13:00 24/05/2018 14:00 24/05/2018 14:00 24/05/2018 15:00 24/05/2018 15:00 24/05/20	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 23.98 22.26 21.19 20.03 19.13	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08 29.43 25.27 21.79 19.65 18.36 21.73	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07 23.89 21.96 19.77 18.4 17.33 16.21	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 22.65 23.42 23.29 22.61 22.35 23.46 22.09 20.76 19.43 18.36	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63 28.7 21.66 19.77 18.19 17.24	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.66 22.18 22.01 21.66 22.175 23.12 23.12 20.8 19.65 18.66 18.66 17.75 18.66 18.66 17.75 18.66 18.66 18.66 17.75 18.66 18.66 18.66 18.66 18.66 18.66 18.66 18.66 18.66 18.66 18.66 18.66 18.67 19.69 10.63 19.69 10.63 10.66 10.65 10.55	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 20.29 20.42 20.29 20.42 20.29 20.42 20.33 21.19 21.15 20.16 19.22 18.36	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58 27.58 25.61 21.15 19.43 18.23 17.16	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24 24.71 23.46 20.46 19.17 18.02 16.94 15.95	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.8 21.4 20.85 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 18.74 19.77 18.74 19.77 18.74 19.77 18.74 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 19.77 18.74 17.8 1
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Day 2. 24/05/2018 8:00 24/05/2018 8:00 24/05/2018 9:00 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:00 24/05/2018 10:00 24/05/2018 11:30 24/05/2018 12:00 24/05/2018 12:00 24/05/2018 13:00 24/05/2018 14:00 24/05/2018 14:00 24/05/2018 15:00 24/05/2018 16:00 24/05/2018 16:00 24/05/2018 16:00 24/05/2018 17:00 24/05/2018 16:00 24/05/2018 16:00 24/05/2018 16:00 24/05/2018 17:00 24/05/2018 10:00 24/05/2018 10:00 24/05/20	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 23.98 22.26 21.19 20.03 19.13 18.19 17.41	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08 29.43 25.27 21.79 19.65 18.36 17.33 16.34 15.4	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07 23.89 21.96 19.77 18.4 17.33 16.26 15.36 17.73	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 23.42 23.29 22.61 22.35 23.46 22.09 20.76 19.43 18.36 17.24 16.43	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63 28.7 21.66 19.77 18.19 17.24 16.21 15.23	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.36 21.36 22.18 22.01 21.66 21.75 23.12 23.12 20.8 19.65 18.66 17.67 16.9 17.07 17.07 17.07 17.07 18.06 19.07 19.09 19.09 19.09 19.09 19.09 19.09 19.09 19.09 19.09 19.09 10.00 10.	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29 20.42 20.29 20.42 20.29 20.42 20.29 20.33 21.19 21.15 20.16 19.22 18.36 21.763 21.694	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58 25.61 21.15 19.43 18.23 17.16 16.13 15.23	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24 24.71 23.46 20.46 19.17 18.02 16.94 15.96 15.14	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.89 21.36 20.93 20.83 21.4 20.85 19.77 18.74 17.8 16.81 16.04 16.73 16.95 16.95 19.77 18.74 17.8 16.43 16.43 16.43 16.43 16.43 16.44 17.8 18.49 19.3 19.35 19.37 19.35 19.37 19.35 19.37 19.35 19.37 19.35 19.37 19.35 19.37 19.35 19.37 19.35 19.37 19.35 19.37 19.35 19.37 19.37 19.57
Day 2. 24/05/2018 8:00 24/05/2018 8:00 24/05/2018 9:00 24/05/2018 9:00 24/05/2018 10:00 24/05/2018 10:00 24/05/2018 10:00 24/05/2018 11:30 24/05/2018 12:00 24/05/2018 12:00 24/05/2018 12:00 24/05/2018 15:00 24/05/2018 15:00 24/05/20	Ambient Temp 14.54 14.75 15.48 15.06 18.4 19.47 20.85 21.83 22.52 23.21 24.28 25.14 23.98 22.26 21.19 20.03 19.13 18.19 17.41 17.46 17.46	Plain roof surface 15.87 16.21 16.77 23.68 27.97 20.98 24.75 29.6 25.52 23.16 26.08 29.43 25.27 21.79 19.65 18.36 17.33 16.34 15.4 17.72	Plain roof underside 15.83 16.21 16.81 23.38 28.05 21.28 25.05 29.98 25.91 23.72 26.77 30.07 23.89 21.96 19.77 18.4 17.33 16.26 15.36 17.72 17.02 18.05 17.02 17	Plain roof space temp 16.08 16.26 16.64 17.93 21.02 21.19 22.26 23.42 23.29 22.61 22.35 23.46 22.09 20.76 19.43 18.36 17.24 16.43 17.2	Classic insulation surface 15.31 15.96 17.41 24.62 29.64 21.15 26.21 30.07 28.01 23.89 28.61 30.63 28.7 21.66 19.77 18.19 17.24 16.21 15.23 17.84	Classic insulation underside 14.58 14.84 15.44 16.73 19.69 20.63 21.36 21.36 21.36 22.18 22.01 21.66 22.175 23.12 22.31 20.8 19.65 18.66 17.67 16.9 17.03 1	Classic insulation space temp 14.84 15.01 15.44 15.78 17.29 18.87 19.39 19.9 20.29 20.42 20.29 20.42 20.29 20.33 21.19 21.15 20.16 20.27 20.29 20.32 20.32 20.17 20.15 20.16 20.15 20.16 20.15 20.16 20.15 20.16 20.15 20.16 20.15 20.16 20.15 20.16 20.15 20.16 20.15 20.16 20.17 20.16 2	C-Coat 0.5mm surface 15.96 16.17 16.6 21.19 24.49 19.52 22.73 26.3 24.84 22.69 25.65 27.58 25.61 21.15 19.43 18.23 17.16 16.13 15.23 17.59	C-Coat 0.5mm underside 15.96 16.26 16.6 18.1 21.06 18.74 21.19 23.16 23.25 21.96 24.24 24.71 23.46 20.46 19.17 18.02 16.94 15.96 15.14 17.54	C-Coat 0.5mm space temp 16.04 16.21 16.43 16.47 17.8 18.49 19.3 19.95 20.85 21.36 20.93 20.85 21.4 20.93 20.85 21.4 20.85 19.77 18.74 10.87 16.81 16.04 16.77 16.77 17.8 16.9 16.9 16.9 16.9 16.9 16.9 16.9 16.9 16.47 17.8 18.49 19.5 1

TIATA001

Temperature tes	ting: Plain roof,	R3 130mm glass wo	ood insulated roof an	d C-Coat <mark>1.5mm</mark> applie	d to the top side.					
Day 1.										
	Ambient Temp	Plain roof surface	Plain roof underside	Plain roof space temp	Classic insulation surface	Classic insulation underside	Classic insulation space temp	C-Coat 0.5mm surface	C-Coat 0.5mm underside	C-Coat 1.5mm space temp
26/05/2018 8:00	13.85	15.23	15.27	15.78	14.24	14.2	14.54	14.88	15.01	15.36
26/05/2018 8:30	14.07	15.4	15.4	15.87	14.71	14.33	14.67	15.1	15.23	15.4
26/05/2018 9:00	14.71	15.91	15.91	16.08	16.73	14.88	14.97	15.87	15.83	15.74
26/05/2018 9:30	15.36	16.21	16.21	16.43	17.5	15.87	15.74	16.3	16.26	16.13
26/05/2018 10:00	16.04	16.51	16.47	16.69	18.19	16.99	16.69	16.64	16.64	16.56
26/05/2018 10:30	16.73	16.77	16.73	16.9	18.83	17.8	17.5	17.03	16.94	16.77
26/05/2018 11:00	17.37	17.03	16.99	17.07	19.39	18.36	18.06	17.37	17.29	17.07
26/05/2018 11:30	18.53	32.34	28.78	20.16	35.22	20.16	19.13	28.23	22.56	18.49
26/05/2018 12:00	19.52	33.03	32.99	24.88	35.09	23.42	20.98	21.45	20.5	20.98
26/05/2018 12:30	23.64	33.5	33.8	28.91	. 33.59	23.34	21.79	29.51	24.66	22.43
26/05/2018 13:00	26.98	30.63	30.97	29.38	32.09	25.57	23.12	27.67	24.15	23.38
26/05/2018 13:30	27.2	29.94	30.28	27.93	30.59	25.57	23.68	26.85	23.38	23.03
26/05/2018 14:00	26.9	30.46	30.84	26.98	32.39	26.08	23.94	24.97	22.52	23.16
26/05/2018 14:30	24.97	23.25	23.29	24.54	23.08	24.24	23.21	22.13	21.1	22.01
26/05/2018 15:00	23.64	20.89	21.1	22.18	20.93	22.09	21.66	20.42	19.77	20.76
26/05/2018 15:30	22.35	19.47	19.52	20.55	19.09	20.59	20.46	19.04	18.66	19.52
26/05/2018 16:00	21.23	17.84	17.84	19.17	17.63	19.52	19.52	17.67	17.54	18.53
26/05/2018 16:30	20.16	16.47	16.43	18.06	16.17	18.79	18.83	16.51	16.43	17.8
26/05/2018 17:00	19.3	17.54	17.54	17.41	. 17.59	18.02	18.23	17.5	17.41	17.24
26/05/2018 17:30	18.7	17.59	17.59	17.76	17.76	17.67	17.8	17.59	17.54	17.5
26/05/2018 18:00	18.27	17.59	17.59	17.72	17.72	17.46	17.54	17.59	17.59	17.59
Day 2.	-									
	Ambient Temp	Plain roof surface	Plain roof underside	Plain roof space temp	Classic insulation surface	Classic insulation underside	Classic insulation space temp	C-Coat 0.5mm surface	C-Coat 0.5mm underside	C-Coat 1.5mm space temp
27/05/2018 8:00	13.77	15.06	15.14	15.7	14.63	14.63	14.93	14.8	14.93	15.31
27/05/2018 8:30	13.98	15.1	15.27	15.74	14.84	14.75	15.01	14.97	15.06	15.4
27/05/2018 9:00	14.41	15.57	15.57	15.87	15.66	15.01	15.23	15.48	15.44	15.57
2//05/2018 9:30	15.01	15.8/	15.91	16.13	16.3	15.5/	15.66	15.91	15.91	15.83
27/05/2018 10:00	15./4	16.26	16.21	16.39	16.//	16.1/	16.21	16.26	16.21	16.1/
27/05/2018 10:30	17.84	29.56	29.6	20.46	31.23	19.6	1/.9/	25.2/	19.86	17.46
27/05/2018 11:00	18.83	31.66	31.83	24.49	32.9	22.82	20.25	27.07	21.83	19.43
27/05/2018 11:30	18.8/	32.94	31.19	26.08	35.13	23.34	20.89	28.74	23.25	20.68
27/05/2018 12:00	19.65	34.88	35.18	25.57	36.98	23.72	20.98	21.62	20.42	21.1
27/05/2018 12:30	24.30	34.02	34.27	29	33.93	23.03	21.06	29.94	24.84	21.96
27/05/2018 13:00	24.9/	32.3	32.43	27.24	31.96	23.98	21.83	27.84	23.42	22.13
27/05/2018 13:30	26.34	27.63	27.84	26.68	26.68	24.54	22.48	24.32	21.75	22.13
27/05/2018 14:00	26.85	29.38	29.73	26.38	31.83	25.61	23.08	25.35	22.48	22.65
27/05/2018 14:30	25.18	23.76	23.81	24.32	23.72	23.98	22.61	22.22	21.02	21.49
2//05/2018 15:00	23.25	20.72	20.8	21.45	20.76	21.53	20.98	19.//	19.04	19.95
27/05/2018 15:30	22.43	19.13	19.26	19.95	19.22	20.03	19.73	18.62	18.06	18.79
2//05/2018 16:00	21.15	18.36	18.44	19	18.4	19.22	18.92	18.06	1/.8	18.19
27/05/2018 10:30	19.99	17.76	1/.84	18.32	1/./2	18.44	18.36	1/.5	17.46	17.76
2//05/2018 1/:00	19.13	17.54	1/.59	17.9/	17.63	1/./6	1/.89	17.41	1/.33	17.46
2//05/2018 1/:30	18.5/	17.40	17.5	17.72	17.54	17.41	1/.59	17.29	17.29	1/.3/
17/05/100404000					1/L	1/30	1/1/	1/00	1/1/	47.30

TIATA001

Results of test 1, Plain roof, R3 130mm Classic insulation and 0.5mm thick C-Coat averaged over 2 days.

The 'Plain' box space temperature compared to the ambient temperature was 1.73% higher. The 'Classic' box space temperature compared to the ambient temperature was 6.79% lower. The 'C-Coat' box space temperature compared to the ambient temperature was 6.97% lower.

The space temperature of the 'Classic' box compared to the 'Plain' box was 8.45% lower. The space temperature of the 'C-Coat' box compared to the 'Plain' box was 8.58% lower.

The roof surface temperature of the 'Classic' box compared to the 'Plain' box was 3.52% higher. The roof surface temperature of the 'C-Coat' box compared to the 'Plain' box was 5.23% lower.

The underside surface temperature of the 'Classic' box compared to the 'Plain' box was 10.57% lower. The underside surface temperature of the 'C-Coat' box compared to the 'Plain' box was 11.33% lower.

Summary: The C-Coat product performed marginally better than the classic R3 130mm insulation across the tests. The notable difference was the roof surface temperature being significantly lower.

Results of test 1, Plain roof, R3 130mm Classic insulation and 1.5mm thick C-Coat averaged over 2 days.

The 'Plain' box space temperature compared to the ambient temperature was 3.96% higher. The 'Classic' box space temperature compared to the ambient temperature was 4.22% lower. The 'C-Coat' box space temperature compared to the ambient temperature was 5.77% lower.

The space temperature of the 'Classic' box compared to the 'Plain' box was 8.19% lower. The space temperature of the 'C-Coat' box compared to the 'Plain' box was 9.51% lower.

The roof surface temperature of the 'Classic' box compared to the 'Plain' box was 2.5% higher. The roof surface temperature of the 'C-Coat' box compared to the 'Plain' box was 8.52% lower.

The underside surface temperature of the 'Classic' box compared to the 'Plain' box was 10.8% lower. The underside surface temperature of the 'C-Coat' box compared to the 'Plain' box was 14.63% lower.

Summary: The C-Coat product performed significantly better than the classic R3 130mm insulation across the tests. Again, the notable difference was the roof surface temperature being significantly lower.

Regards Kn 35

Brad Wyber

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ATTACHEMENTS:

Graph No. 1 - Ambient Temperatures 23 May 2018 in Sydney - Australia

Testing was conducted from 8:00AM to 6:00PM in late autumn 2018 using corrugated steel roofing material. The ambient temperature sensor was position out of direct sunlight.

Graph No. 2 - Plain Roof Temperature

This graph shows the temperature results of Test Box No.1 using standard roofing that is untreated and uninsulated. These results should be used as the base reference to compare the different insulation mediums.

Graph No. 3 - Comparing 130mm glass wool R3.0 with 0.5mm coat of C-COAT

The graph compares the temperature results using standard roofing with glass wool (Test Box No. 2) and 0.5mm coat of C-COAT (Test Box No. 3).

Graph No. 4 - Roof with 130mm glass wool R3.0

The graph shows Test Box No. 2 results only for 130mm glass wool R3.0 insulation under the roof.

Graph No. 5 - Roof with 0.5mm coat of C-COAT

The graph shows Test Box No. 3 results only for 0.5mm coat of C-COAT applied over the top of the roof. It indicates that a significant amount of heat has been blocked using a coat of C-COAT.

Graph No. 6 - Comparing surface temperatures of 130mm glass-wool R3.0 with 0.5mm coat of C-COAT

This graph compares the surface temperatures of Test Box No. 2 and Test Box No. 3 and clearly shows that C-COAT has significantly lower surface temperature than with glass wool insulated, indicating that heat energy has been effectively reflected.

Graph No. 7 - Comparing underside temps of 130mm glass wool R3.0 with 0.5mm coat of C-COAT

An analysis of the underside temperatures of Test Box No. 2 and Test Box No. 3 shows that the effects of 0.5mm coat of C-COAT are matching the effects of R3.0 insulation material.

Graph No. 8 - TEST SUMMARY – Overall reduction of temperature when 0.5mm of C-COAT is applied

The graph presents the temperature difference of surface temperature of Test Box No. 2 and underside temperatures inside of Test Box No. 3

These are actual temperature effects (reduction from 5° C to 10° C) achieved when 0.5mm coat of C-COAT is applied over the standard metal roof of the building while having ambient temperature from 11° C to 31° C















