



CYNDA

chemical solutions

Heat Shield – Tom Price, WA

Rio Tinto Light Industrial Area

HEAT SHIELD Tom Price, WA

LOCATION

The application was done on a work shed & 40 foot storage container in **The Pilbara Clean Machines Pty Ltd** operations yard at the **Rio Tinto Light Industrial Area**, located in Tom Price, in the rugged and hot Western Australia outback.

The work was performed by Pilbara Clean Machines Pty Ltd staff and Cyndan Sales Representative for the region, Dave Limpus.

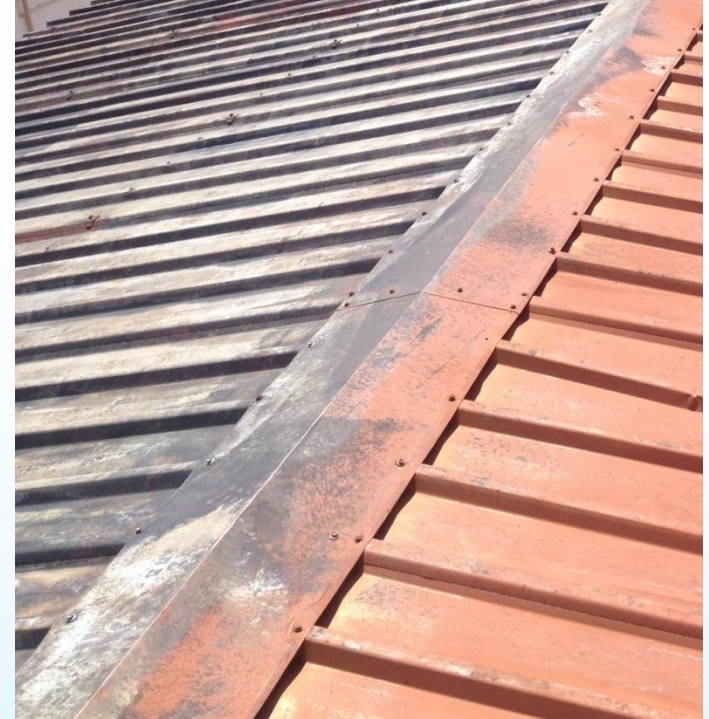


Heat Shield was applied working around other general yard operations. It poses no problem for nearby workers when being applied.



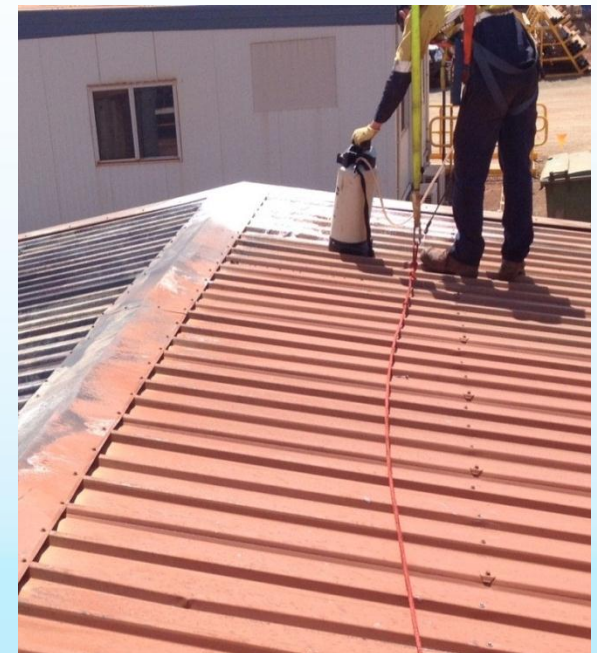
ISSUE

The roof surfaces were stained Pindan red so needed sound preparation to ensure the long term protection of the building.



PREPARATION – Clean Up

1. All surfaces treated with **Cyndan UBC (dilution 1:8)** & pressure cleaned off.
2. All surfaces then re washed with **Cyndan Power Kleen (dilution 1:10)** & pressure washed off.
3. Finally, 2 light coats of **Cyndan Rust Buster Clear** were applied to neutralise and encapsulate any rust, and ensure good bond of **Heat Shield** to old surface.



HEAT SHIELD
Tom Price, WA

APPLICATION

Cyndan Heat Shield paint which comes in white as standard was then applied on all building surfaces.

HEAT SHIELD

Reduces internal building temperatures by up to 20°C

Cuts cooling costs by up to 40%

Waterproofing Properties

Fire Resistant Properties



in green green green



HEAT SHIELD

Tom Price, WA

Key Customers Include:

- Brookfield Multiplex-Defence
- Central Parklands
- Essential Energy
- Hume Contracting
- J&B Painting
- Nilsen Electric (SA)
- NSW Golf Club
- North Ryde RSL Club
- Ringwood Property Services
- Road Trek Body Works
- Southern Downs Council
- Star Trak Express Tullamarine
- Toll Fleet Management

HEAT SHIELD

Paint on Heat Insulation

Cyndan Heat Shield is an acrylic, solar reflective paint utilising the latest in micro crystals technology, with a proprietary formulation to provide an excellent coating for heat insulation purposes.

It is primarily used for exterior roof or vertical surfaces, facades, HVAC equipment and ductwork. It can also be used in many other miscellaneous applications that benefit from the insulation provided. The finished coating also provides exceptional fire proofing properties.

Key features and benefits

1. High total reflective index (85%) to sun light
2. Low glare, which reduces the environmental impact to your neighbourhood.
3. Excellent water proofing properties, can bridge cracks and holes of up to 4mm.
4. Excellent flexibility and adhesion to any substrate.
5. Excellent weather and UV durability, life expectancy 25 years +.
6. Satisfying the requirements as an energy saving product, can save up to 40% in cooling costs.
7. Can be applied to all metal, timber, plastic and masonry surfaces.
8. Available in a range of colours.

Part of the Cyndan Green Range

- Reduces internal building temperatures by up to 20°C
- Cuts cooling costs by up to 40%
- Waterproofing properties
- Fire resistant properties

Use on:

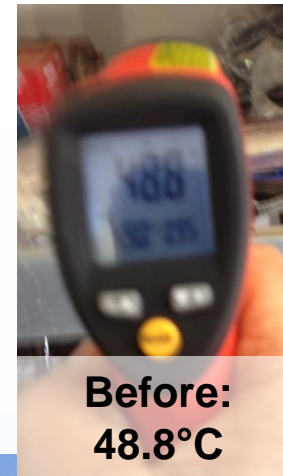
- ✓ Rooftops
- ✓ Buildings
- ✓ Facades
- ✓ HVAC equipment
- ✓ Fuel storage tanks



RESULTS (I)

Prior to the application of **Heat Shield**, in the afternoons shed temperatures were hotter inside than external temperatures.

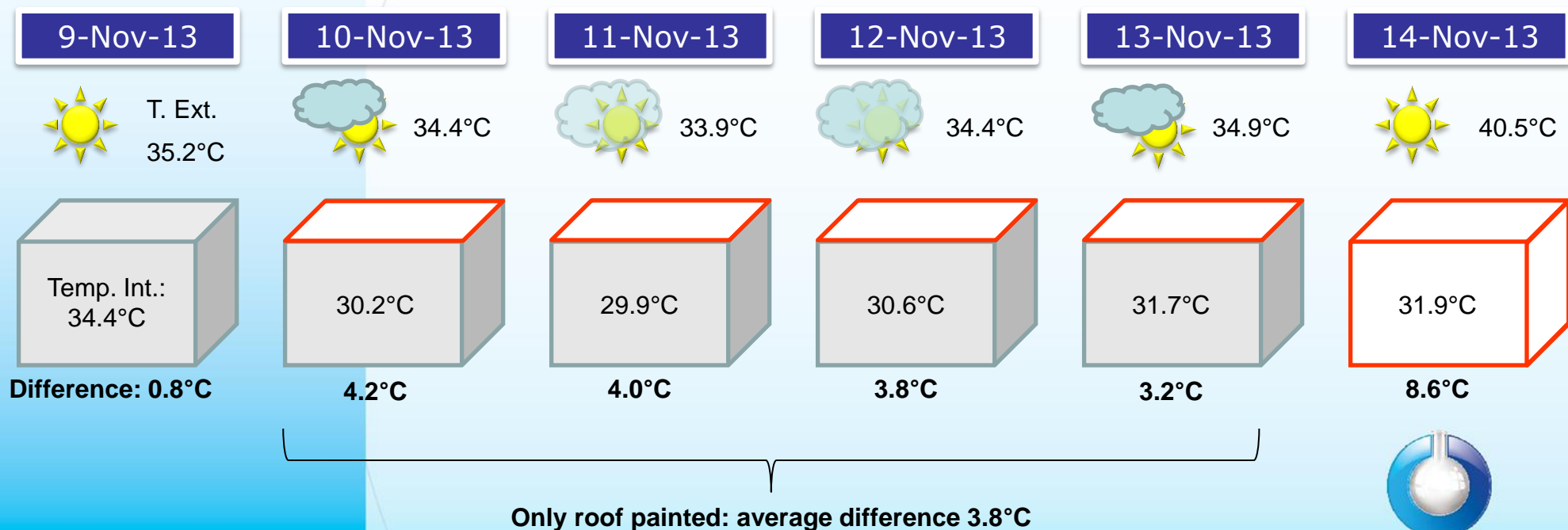
Immediate effect after only the roof painted: internal temperatures never again higher than outside.



RESULTS (II)

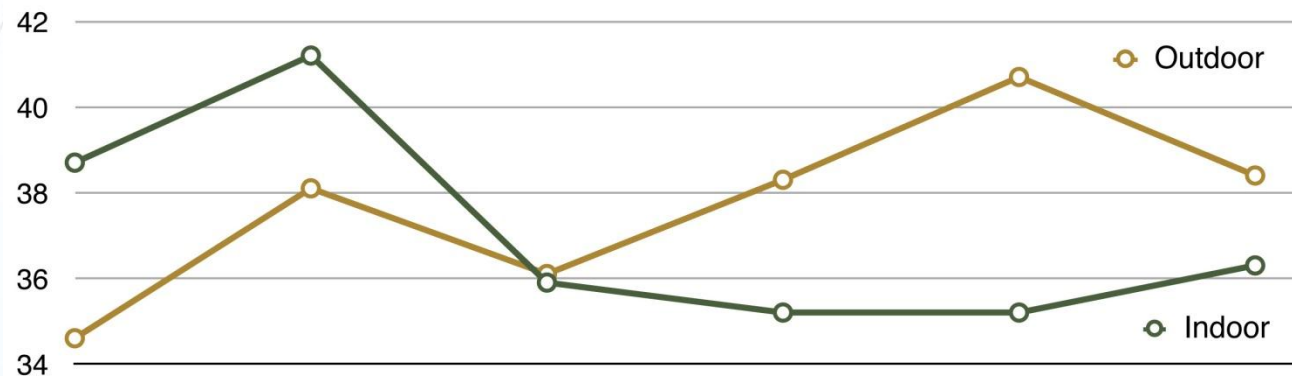
Temperature difference in the MORNINGS (9am):

- Prior to painting: 0.8
- After roof painted: average of 4 days is 3.8C
- After walls also painted 14 Nov 2013 difference is 8.6C and product works best the hotter it is outside



RESULTS (III)

Prior to the application of **Heat Shield**, in the **AFTERNOONS** shed temperatures were hotter inside than external temperatures.

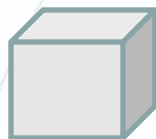


Readings at 1400 hrs

Heat Shield Trial Tom Price							
1400 hrs	8.11	9.11	10.11	11.11	12.11	14.11	
Indoor	38.7	41.2	35.9	35.2	35.2	36.3	
Outdoor	34.6	38.1	36.1	38.3	40.7	38.4	
	Prior to Heat Shield		Roof only treated			Roof & walls painted	

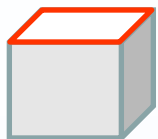
RESULTS (IV)

9-Nov-13

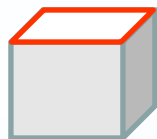


Before

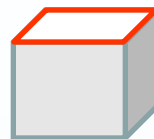
10-Nov-13



11-Nov-13



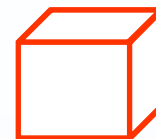
12-Nov-13



13-Nov-13



14-Nov-13



Only roof painted

Walls also painted

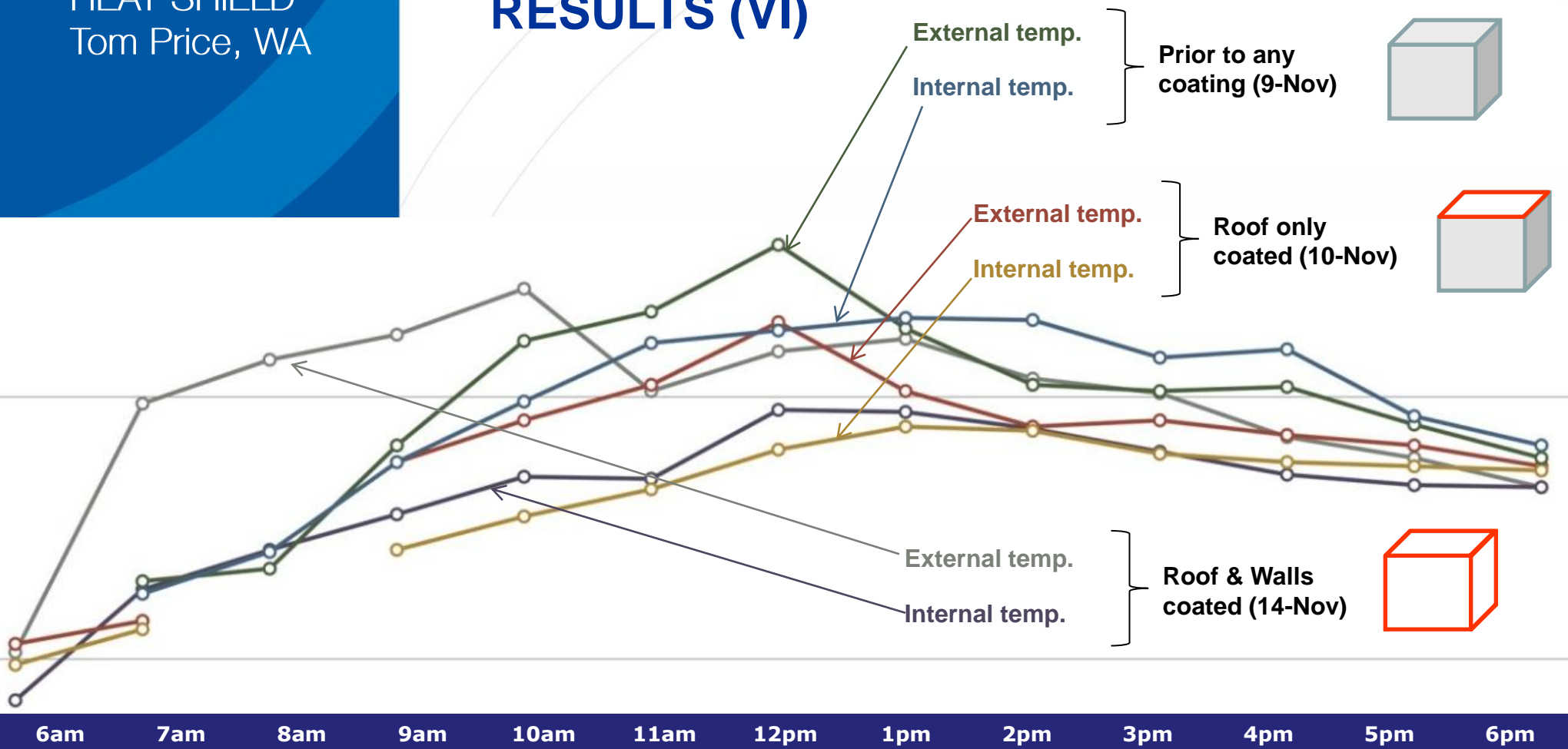
	Internal Temp.	External Temp.	Internal	External	Internal	External	Internal	External	Internal	External	Internal	External
6am			24.7	25.7	22.0	22.7	22.0	23.4			23	25.3
7am	28.1	28.7	26.4	26.8	25.1	23.8	25.4	27.6	25.8	24.7	28.3	37.2
8am	30.1	29.3			27.5	29.5	29.3	31.9	29.5	32.6	30.2	39.3
9am	34.4	35.2	30.2	34.4	29.9	33.9	30.6	34.4	31.7	34.9	31.9	40.5
10am	37.3	40.2	31.8	36.4	31.3	38.2	32.7	40.1	32.4	37.1	33.7	42.7
11am	40.1	41.6	33.1	38.1	33.6	38.6	33.8	38.1	33.6	38.2	33.6	37.8
12pm	40.7	44.8	35.0	41.1	34.9	40.7	34.6	38.4	36.3	38.4	36.9	39.7
1pm	41.3	40.8	36.1	37.8	35.2	36.6	35.2	36.0		37.7	36.8	40.3
2pm	41.2	38.1	35.9	36.1	35.1	38.3	35.2	40.7			36.0	38.4
3pm	39.4	37.8	34.8	36.4	33.4	36.4	34.9	37.1			34.9	37.7
4pm	39.8	38.0	34.4	35.7	34.8	37.1	35.6	37.9			33.8	35.6
5pm	36.6	36.2	34.2	35.2	34.6	35.8	34.7	35.9			33.3	34.6
6pm	35.2	34.6	34.0	34.2	32.9	33.7	33.4	33.8			33.2	33.2

RESULTS (V)

- ✓ Given internal temperatures were previously 2-3C hotter than external temperatures, the reductions created by just painting the roof were around 5-8C.
- ✓ When the walls were painted, temperature reductions are cooler by 8-12C in the heat of the day compared to pre-Heatshield.

	Before		Only roof painted						Walls also painted			
	Internal Temp.	External Temp.	Internal	External	Internal	External	Internal	External	Internal	External	Internal	External
6am			24.7	25.7	22.0	22.7	22.0	23.4			23	25.3
7am	28.1	28.7	26.4	26.8	25.1	23.8	25.4	27.6	25.8	24.7	28.3	37.2
8am	30.1	29.3			27.5	29.5	29.3	31.9	29.5	32.6	30.2	39.3
9am	34.4	35.2	30.2	34.4	29.9	33.9	30.6	34.4	31.7	34.9	31.9	40.5
10am	37.3	40.2	31.8	36.4	31.3	38.2	32.7	40.1	32.4	37.1	33.7	42.7
11am	40.1	41.6	33.1	38.1	33.6	38.6	33.8	38.1	33.6	38.2	33.6	37.8
12pm	40.7	44.8	35.0	41.1	34.9	40.7	34.6	38.4	36.3	38.4	36.9	39.7
1pm	41.3	40.8	36.1	37.8	35.2	36.6	35.2	36.0		37.7	36.8	40.3
2pm	41.2	38.1	35.9	36.1	35.1	38.3	35.2	40.7			36.0	38.4
3pm	39.4	37.8	34.8	36.4	33.4	36.4	34.9	37.1			34.9	37.7
4pm	39.8	38.0	34.4	35.7	34.8	37.1	35.6	37.9			33.8	35.6
5pm	36.6	36.2	34.2	35.2	34.6	35.8	34.7	35.9			33.3	34.6
6pm	35.2	34.6	34.0	34.2	32.9	33.7	33.4	33.8			33.2	33.2

RESULTS (VI)



CONCLUSION

- ✓ Heatshield effective in creating temperature turnaround of 8-12 degrees Celsius during heat of the day. Sensational for warm climate locations.
- ✓ Easy application: 2 coat option is recommended for walls, but 1 coat 2 pass used in this instance worked OK.
- ✓ Interest from surrounding yards was high & very positive: one contractor walked into the shed with instant comment "s**t yeah that works" – It is that immediately noticeable.
- ✓ Matt finish in red dirt country will be a bit of a drama to keep clean & therefore functional, so will require periodic wash down to preserve the protection afforded by the solar white paint & crystals contained in Heatshield.



CONTACT US
FOR FURTHER
INFORMATION

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