

## 

Water-based,

Special Thermal Insulation Coating
External Wall and Roof

# COOL TIGHT LIGHT W





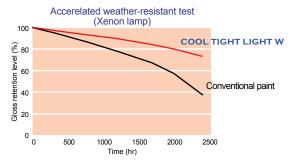
## COOL TIGHT LIGHT W

**COOL TIGHT LIGHT W**, thermal insulation coating, delivers high performance in thermal insulation on exterior wall and roof. It helps improve indoor environment and saves air conditioning costs.

### FEATURES

#### Weather resistance/ High durability

With its high durable resin, it provides excellent weatherproof / high durable performance.



#### Anti-mildew / Anti- algae

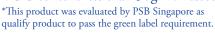
With special specification, it provides high resistance to microorganism such as mildew and algae.

#### Substrate degradation control

Controlling temperature difference leads to resistance to substrate degradation caused by metal shrinkage and expansion.

#### Environmentally friendly

VOC content less than 50g/L: Passed

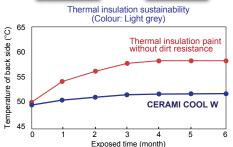




#### Super dirt & dust resistance

Its dirt resistant property provides not only beautiful surface but also long lasting heat reflective function as dirt and dust cause the decrease of heat reflection effect.





#### Test method

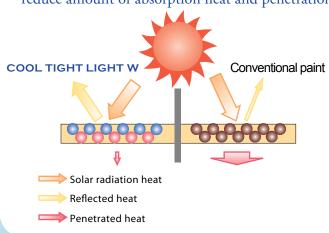
After outdoor exposure, expose a specimen to infrared ray lamp and check the temperature of the back of the specimen.

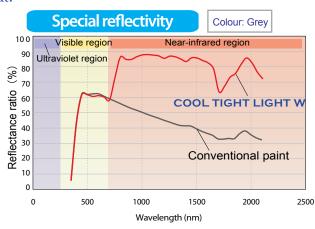
#### Result

The temperature of the specimen with heat reflective paint without dirt resistant property gradually increases due to dirt accumlation whereas CERAMI COOL W specimen keeps its heat reflection property.

## HEAT REFLECTION MECHANISUM

It provides thermal insulation performance by reflecting infrared ray that emit strong radiation to reduce amount of absorption heat and penetration heat.





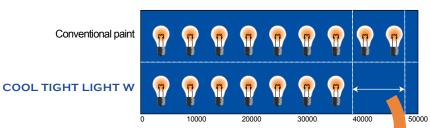
## HEAT REFLECTION PROPERTIES

## **16%** per annum of electric power will be saved

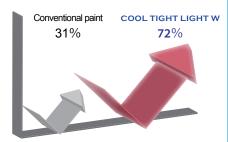
**Energy saving effect of** thermal insulation

Wall substrate: Concrete (thickness=150mm) K-Value: 4.2W/m2\*K Colour: Grey Room temperature: 25°C Application area: 1000m<sup>2</sup>

Electric power consumption (Wh/h)



Near Infrared Radiation (NIR) Reflectance (Colour: Grey)



519 poplars per annum!

Convert to difference in cooling load (Wh) to Amount of CO<sub>2</sub> discharge, and convert this to trees of poplar.\*

Power consumption per hour has been measured on conditions that room temperature was kept at 25°C, and that the above samples had been applied to external wall (1000m<sup>2</sup>). From the result,

we can expect that approximately 16% of electric power will be saved in case of COOL TIGHT LIGHT W unlike regular coating.

- \* Calculation is done under assumption as below;
- The amount of discharge of CO<sub>2</sub>: 0.555kg-CO<sub>2</sub>/ kWh Working time of air conditioner:  $15 \text{ hrs/day} \times 30 \text{ days/month} \times 12 \text{ months/year} = 5,400 \text{ hrs/year}$  Amount of CO<sub>2</sub> that poplar of 10m tall would absorb per year: 52kg-CO<sub>2</sub>



Cold storage warehouses, refrigerated storages, shipping storages, food-processing plants, buildings, schools, gym houses, rearing facilities, etc.

## SUITABLE SUBSTRATES



Cement rendering, concrete, various type boards, repainting of old films



Cement tile, thin tile, metal roof, slate roof



COOL TIGHT LIGHT W (30% Gloss) 16 kg / can kg / can kg / can SK WHITE SEALER W 18 LENALUCK \*MIRAC #100 PRIMER Base kg / can \*MIRAC #100 PRIMER Hardener \*MIRAC BOSEI Base \*MIRAC BOSEI Hardener kg / can kg / can kg / can 16 16 ltr / can \*EH THINNER

(Products indicated by \* requires careful handling.)

### STANDARD APPLICATION SPECIFICATION

Exterior Wall Flat (smooth) finish

(20°C, 65%RH)

			Dilution ratio	Consumption	No. of	Interval (hrs)			
Process		Material	(wt. %)	(kg/m²)	coat		In Processes	Final curing	Remarks
Su	Surface treatment  Dry the surface thoroughly to bring water content to a maximum of 10% and pH to 10 or less.  Completely remove any dirt, dust, and make good of unevenness, irregularities and scratches.								_
1	Undercoat	SK WHTIE SEALER W	100	0.12-0.15	1	-	2 or more	-	Roller, brush,
		WATER	0 - 15	1					spray gun
2	Top coat	COOL TIGHT LIGHT W	100	0.28-0.32	2	2 or more	-	24 or more	Roller, brush,
		WATER	0 - 20	-		2 or more			spray gun

#### Exterior Wall Spattered spray texture finish / Pressed finish

(20°C、65%RH)

	_		Dilution		No. of	Interval (hrs)			Remarks	
Process		Material	ratio(wt.%)	Consumption	coat	In process	In processes	Final curing	Remarks	
Surface treatment		Dry the surface thoroughly to bring water content to a maximum of 10% and pH to 10 or less.  Completely remove any dirt, dust, and make good of unevenness, irregularities and scratches.								
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1	Undercoat	SK WHITE SEALER W	100	0.12-0.15	1	-	2 or more	_	Roller, brush,	
'		WATER	0 - 15	-					spray gun	
	Main coat	LENALUCK	100	1.3-1.7	4.0	0	Spray: 24 or more		Tile gu nozzle tip: 6.5-10mm Pressure:	
2		WATER	0 - 5	-	1-2	2 or more	Pressing: 0.5 or more	-	392-588kPa (4-6kgf/cm²)	
3	Pressing	Press the texture with a plastic roller dipped in PAINT THINNER A.					24 or more	-		
4	Top coat	COOL TIGHT LIGHT W	100	0.28-0.32	2	2 or more	-	24 or more	Roller, brush,	
+		WATER	0 - 20	-					spray gun	

#### Roof (1) (For cement tile, thin tile, slate roof)

(20°C、65%RH)

	Process	Material	Dilution ratio(wt.%)	Consumption	No.of coat	Interval (hrs)			_
						In process	In processes	Final curing	Remarks
Surface treatment*  Dry the surface thoroughly to bring water content to a maximum of 10% and pH to 10 or less. Completely remove any dirt, dust, and make good of unevenness, irregularities and scratches.									
1	Undercoat**	MIRAC #100 PRIMER Base	100	0.14-0.17	1	-	6 hrs. to 14 days	-	
		MIRAC#100 PRIMER Hardener	25						Roller, brush,
		EH THINNER	0 - 30	-					spray gun
2	Top coat	COOL TIGHT LIGHT W	100	0.28-0.32	2	2 or more	-	24 or more	Roller, brush,
		WATER	0 - 20	-					spray gun
	Edge cutting Cut edges of tiles, especially around underthroating, bonded by the materials.								

#### Roof (2) (For metal roof, corrugated iron roof)

(20°C、65%RH)

	Process	Material	Dilution ratio(wt.%)	Consumption	No.of coat	Interval (hrs)			Damanika
						In process	In processes	Final curing	Remarks
Surface treatment*  Nemove dirt, moss and debonding film, etc. with high-pressure jet washer (10-15MPa).  In case high-pressure jet washer is not available, remove dirt, moss and debonding film, etc. from the surface with scrub brush watering out of hose.  Nemove rust completely if rust occurs partly.									_
1		MIRAC BOSEI Base	100	0.14-0.17			6 hrs. to		Deller brush
	Undercoat**	MIRAC BOSEI Hardener	25	0.11 0.11	1	-	14 days	-	Roller, brush, spray gun
		EH THINNER	0 - 30	-					Spray gair
2	Top coat	COOL TIGHT LIGHT W	100	0.28-0.32	2	2 or more	-	24 or more	Roller, brush,
		WATER	0 - 20	-					spray gun

<sup>\*</sup>Be sure to clean carefully the area where upper and lower roof tiles overlap with wire brush. Insufficient cleaning may result in finish without gloss and cause blister and peel-off in the future.

\*\*Consumption varies depending on the condition of deterioration.