



# HL470

## Energy Efficient Thermal-Moderating<sup>™</sup> Coating

### PRODUCT DESCRIPTION

HL470 is a free V.O.C. water based acrylic coating, that is designed as an effective thermo-moderating<sup>™</sup> coating to moderate temperature migration between coated structure and its environment. HL470 keeps building cool in warm climate and keep building warmth from cooling in cool climate. It helps reduce electrical consumption for air-conditioner and heater systems.

### SUITABLE USES

New or existing internal and external plaster, concrete, masonry and sound cement panel including primed ferrous and non-ferrous metals.

- Education, residential, industrial, commercial building and many more
- Green buildings
- Interior and exterior of building and structure

### ADVANTAGES

- Low V.O.C. non-toxic and odorless
- Excellent thermal moderating property
- Prevent condensation and fungus growth
- Non combustible, UV stable and durable

### SUBSTRATE REQUIREMENT

To obtain desirable result, it is important that HL470 is applied onto clean, sound and water -tight substrate free of dirt, oil, grease, soot, adhesives, laitance and other surface contamination and defect.

### SURFACE PREPARATION

- All new concrete must be allowed to cure for at least 14 days
- The moisture content should be  $\leq 15\%$  when check with an electronic or colour coded Protimeter.
- Mechanically grind to remove all surface laitance.
- Repair material use should have bonding strength  $\geq 1.0 \text{ N/mm}^2$  and is not soft and powdery.
- Repair material must be suitable for external use and will not lose properties under rain and shine.

### WORKING WITH HL470

Apply a coat of HL470 Primer, water based siloxane primer at a minimal of 0.2kg/m<sup>2</sup> coverage on concrete and plaster substrates. We recommend only trained and approved applicator to be engaged to performance application of HL470.

### APPLICATION OF HL470

Equip with right tool and equipment before mixing of HL470. Sample Stirrer is shown below.

Start stirring and move the MG peddler in direction opposite to MG peddler blade rotation for 5 minutes to obtain a homogeneous and uniform mass. As this is a ready to use formulation, no diluting is required.



For spray application, we recommend Graco airless spray pump and make sure that all pump and gun filters are not obstructed before spraying. Maintain the pump pressure at PSI 2,000-2,200. Check with your local supplier for more detail.





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### PHYSICAL PROPERTIES

Appearance	Egg shell matt
Colour	Standard range
Resin type	Acrylic
Coverage at 1 mm	1.60 kg/m <sup>2</sup>
<b>Curing process</b>	
Touch dry	60min/30°C/ 0.5mm thk
Initial curing	4 hrs/30°C/ 0.5mm thk
Full Curing	24 hrs/30°C/ 0.5mm thk
<b>Conductivity</b>	
Heat conduciveness	ASTM E96-82/CNS 10756 >90
Thermal conductivity K <sub>coating</sub> value	105 W/mK @ 0.44x10 <sup>-3</sup> m 0.025 W/mK
Temp Δ °C	For 0.5mm thick HL470
Metal Roof Black	70°C à 51°C (Δ 19°C)
Concrete Panel	65°C à 45°C (Δ 20°C)
Calcium Silicate 6mm	65°C à 52°C (Δ 13°C)
Metal Panel 10mm	70°C à 50°C (Δ 20°C)
Asphalt Sheet	80°C à 50°C (Δ 30°C)
<b>* test result may vary with different substrate type</b>	
Solid Content	>60%
Viscosity	5,000-8,000 CPS

### COVERAGE

#### As heat insulating coating for facade

500μ D.F.T. requires about 0.80 kg/m<sup>2</sup>  
1,000μ D.F.T. requires about 1.60 kg/m<sup>2</sup>

#### As an anti condensation coating

1000μ D.F.T. requires about 1.60 kg/m<sup>2</sup>  
2000μ D.F.T. requires about 3.20 kg/m<sup>2</sup>

### PACK SIZE

15 kg

### POTLIFE & SHELF LIFE

Pot Life – at least 3 months after mix and kept under close lid and cool condition.

Shelf life – 12 months in sealed condition  
Remove skin form on top before use

### STORAGE & TRANSPORTION

Keep HL470 in cool and dry condition. Store it in its original sealed condition.

### LIMITATIONS

- HL470 may not bond properly to curing compounds or other coatings on concrete.
- Bond or pull off test is recommended to determine suitability before actual application. Coverage and consumption vary depending on porosity and roughness of substrate.
- Suitable application temperature is 15°C to 45°C
- Apply or install when relative humidity is <75%

### DISCLAIMER CLAUSE

This TDS summarizes our best knowledge of this product, including how to use the product based on the information available at the time of publication. You should read this TDS carefully, consider and try out the information in the context of how the product will be used, including in conjunction with any other product, type of surfaces to, and the manner the product will be applied.

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