

# ENERGY SAVER



## Urethane(S) intermediate/top coat

ENERGY SAVER URETHANE(S) is based on acrylic polyol- isocyanate resin, and ceramic/infrared reflect pigments. This paint has excellent tough film good adhesion, excellent appearance, durability and chemical resistance. Sunlight reaching the surface of the paint layer is reflected to prevent the penetration of heat. And either the heat absorbed into the paint layer is extinguished by ceramic particles or radiate to the outside at low height. Thus wielding further heat blocking effects. thus maintaining comfortable residential environments and constant indoor temperatures and consequently reducing room heating/cooling cost considerably.

Usage	<ol style="list-style-type: none"> <li>1. Factory, Warehouse, House, Building of roof and exterior wall</li> <li>2. Gas and Granary storage tank</li> <li>3. Plants</li> <li>4. Necessary Place of heat blocking / heat insulation</li> </ol>
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### Specification

Paint type	Acrylic Urethane			
Drying time	Category	5°C	20°C	30°C
	Set-to-touch	1 hour	30 minutes	20 minutes
	Dry-through	8 hours	5 hours	4 hours
	Over-coat (Min.)	12 hours	8 hours	6 hours
	Pot life	6 hours	5 hours	3 hours
Above pot life and follow-up coating time have been measured under laboratory conditions and may vary depending on the construction site.				
Thinner	DR-700	Dilution ratio	▷ Brush,roller: above 10%	
Specific gravity	Appr. 1.0454		▷ Air spray: above 15%	
Theoretical Coverage	5.06m <sup>2</sup> /L (DFT 100μm)	Solid volume ratio	60.5%	
Color	White	Mixing ratio	Base(A)/Hardener(B)=5/1 (Weight ratio)	

### Product Properties (Physical Property Data)

CHARACTERISTIC	Excellent Solar Heat Reflectance
	Excellent heat insulation effect
	Prevent rust on steel, Absorbing noises
	Excellent durability
	Heat conduction is very low
	CCRC approved, TSR : 0.82 / TE : 0.87 (White)
* CCRC is Cool roof rating council in USA	

### How to Use

Surface treatment	<ol style="list-style-type: none"> <li>1. The substrate should be cured sufficiently. (It should cure for more than 28 days at 20°C.)</li> <li>2. Laitance, dust, oil, and other foreign matters should be removed completely from substrate surface.</li> <li>3. Under coat shall be dried.</li> <li>4. The appropriate pH value of the substrate is below 9, and the moisture content should be less than 8%.</li> </ol>
Coating Method	<ol style="list-style-type: none"> <li>1. Primer                     <ol style="list-style-type: none"> <li>① Once the surface preparation is completed, mix the resin of epoxy primer DCE-137 and hardener sufficiently at a 4:1 weight ratio and apply the paint one time with the brush or roller or through spray coating until the dry film is as thick as about 30μm.</li> <li>* The primer below is recommended depending on the surface of the material. Surface of concrete: DCE-137 Surface of tin(galvanized steel) sheet: DNU-800 Surface of steel: DNY-130</li> </ol> </li> <li>2. Intermediate Coating                     <ol style="list-style-type: none"> <li>① At least 18 hours after the primary coating based on a temperature of 20°C, apply the paint three or four times with brush or roller or through spray coating until the dry film is as thick as 200μm.</li> <li>② At this time, the paint should be mixed with the designated DR-700 thinner diluted to less than 10% if coated with brush and roller and less than 15% if coated through spray coating.</li> <li>③ The intermediate coating that is repeated twice should be carried out at least 8 hours at 20°C after the top coating was applied once.</li> </ol> </li> <li>3. Top Coat                     <ol style="list-style-type: none"> <li>① At least 8 hours after the intermediate coating at 20°C, apply the ENERGY SAVER URETHANE CLEAR with brush or roller or through spray coating until the dry film is as thick as 60μm .</li> <li>② At this time, the paint should be mixed with the designated DR-700 thinner diluted to less than 10% if coated with brush and roller and less than 15% if coated through spray coating.</li> </ol> </li> </ol>
Note	<ol style="list-style-type: none"> <li>1. If painted below 5°C, the film will not be formed evenly, and a crack may result. Thus, avoid painting below that temperature.</li> <li>2. Avoid excessive dilution(may weaken the adhesion).</li> <li>3. Do not apply paint before the substrate is dried completely (wet substrate decreases the adhesion strength of paint).</li> <li>4. The paint should be kept at 5°C to 35°C in sealed state indoors.</li> <li>5. The paint should be stirred sufficiently to make a uniform coating mixture before use.</li> <li>6. If two-component (two-pack) is used, the resin and hardener should be mixed sufficiently with the high-speed mixer according to the instructed mixing ratio before use.</li> <li>7. Toner should not be used with ENERGY SAVER URETHANE(S) because it decreases the insulation.</li> <li>8. Contact our Technology Department if spray coating is difficult or when you are painting in a narrow place such as the porch of a house.</li> <li>9. Keep combustible materials away and ventilate appropriately while painting.</li> <li>10. Do not use hardened paint whose expiration date has lapsed.</li> <li>11. This product should not be applied under the condition of lower than 5°C and over 85% RH.</li> <li>12. Do not use mixed paint after pot-life.</li> <li>13. This product should be stored at temperature between approx. 10°C and 30°C.</li> </ol>