



KARUMEL EX8816 is a epoxy/polyester resin based thermosetting powder coatings with excellent appearance. It has excellent flexibility, corrosion and chemical resistance. KARUMEL EX8816 is available in wide range of color in gloss, semi-gloss, flat, metallic and hammer effect and can be matched to the customer requests.

<b>Recommended use</b>	<ul style="list-style-type: none"> <li>As a protective and decorative coating for use on electric home appliances, automobile parts, building materials, etc.</li> <li>Not recommended for exterior</li> </ul>
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### Physical Properties

Finish and Color	Colors and patterns are available on request			
Specific gravity	AIR PYCNOMETER METHOD 1.3~1.7 according to color			
Spreading rate (Theoretical)	60μm dry film thickness 9.3 ~ 12.2 m²/kg			
FILM PROPERTIES	The data are typical for EX8816 applied to Cold Rolled Steel panels(thickness 0.7mm) pretreated with zinc phosphate, coated with a thickness of 60μm, and cured at 180℃ (356°F) for 10 minutes. Typical values for glossy white color powder coating.			
	Property	Test Method	Test Description	Result
	Adhesion	ASTM D3359	Cross-cut 100/100, 1mm tester	100/100
	Gloss	ASTM D523	Gloss meter (60° )	Above. 85%
	Hardness	ASTM D3363	MITSUBISHI UNI Pencil	HB-H
	Impact	ASTM D2793	Dupont Impact Tester(1/2"φ )	1kg/30cm
	Bending	ASTM D552	6mm Mandrel at 180°	No cracking
	Erichsen	ASTM D2486	Erichsen tester	Above 6mm
	Salt spray resistance	ASTM B117	Salt spray tester, 500hrs	Under 3mm
*Salt spray resistance according to substrate and surface treatment.				

### Application details

<b>Surface preparation</b>	The surface must be clean and free from rust, dust, oil, grease and other contamination. Types of pre-treatment are recommended as follows: * Steel : Iron Phosphate, Zinc Phosp * Aluminum: Chromate						
<b>Drying time</b>	<p>The following theoretical curing schedules are recommended to achieve the best performance properties.</p> <table border="1"> <thead> <tr> <th>Temperature</th><th>Cure Time</th></tr> </thead> <tbody> <tr> <td>180°C (356°F) Gloss</td><td>10 minutes(M.P.T)</td></tr> <tr> <td>180°C (356°F) Semi-Gloss, Flat-gloss</td><td>14 minutes(M.P.T)</td></tr> </tbody> </table> <p>*The cure time may have deviations influenced by various factors. *M.P.T means metal peak temperature.</p>	Temperature	Cure Time	180°C (356°F) Gloss	10 minutes(M.P.T)	180°C (356°F) Semi-Gloss, Flat-gloss	14 minutes(M.P.T)
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### Storage and package

<b>Shelf life</b>	12 months at 25°C with relative humidity 65% sealed state ( 77 ) °F cool and dry place (Cooler temperature and lower humidity are recommended)
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Packing Unit | 20 kg

Remarks	
Handling	REMARK
Precautions	<ul style="list-style-type: none"><li>- Do not mix with any other type of powder to avoid the reduction of gloss and defect of physical properties.</li><li>- The mixing ratio of reclaim powder with virgin powder should be less than 30% and should be well sieved prior to being mixed.</li><li>- Notice; Separation of metallic and mica pigments can take place from the powder during application.</li></ul> <p>Notice</p> <ul style="list-style-type: none"><li>- The information is believed to be accurate without any obligation to KCC Corporation.</li><li>- Refer to Material Safety Data Sheet for complete hazard and safety information.</li><li>- All data are based on laboratory testing and practical experience.</li><li>- Contact KCC sales representative for further information.</li></ul>
1'st issue	2009-11-01
Revision	

Disclaimer : The information in this data sheet is believed to the best of our knowledge based on laboratory test and practical experience. However, there are many factors affecting the performance of product and the product quality itself, so we are not able to guarantee without the confirmation of the purpose of using the product from us in writing. We reserve the right to change the data without notice and you should check that this data sheet is current prior to using the product.

