



KARUMEL EX6100 is a epoxy/polyester resin based thermosetting powder coatings with metal finished appearance by bonding metallic pigment.

Recommended use	As a protective and decorative coating for use on interior products, home electric appliances, etc. * Not recommend to exterior
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Physical Properties

Finish and Color	Metallic. Colors and patterns are available on request.																		
Dried film Properties	The data are typical for EX6100 applied to Cold Rolled Steel panels(thickness 0.7mm) pretreated with zinc phosphate, coated with a thickness of 60 μ m, and cured at 180 $^{\circ}$ C(356 $^{\circ}$ F) for 10 minutes. <table border="1" data-bbox="296 683 1190 987"> <thead> <tr> <th>Property</th> <th>Test Description</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Adhesion</td> <td>Cross-cut 100/100, 1mm tester</td> <td>100/100</td> </tr> <tr> <td>Gloss</td> <td>Dupont Impact Tester(1/2"Φ)</td> <td>500g/30cm</td> </tr> <tr> <td>Bending</td> <td>6mm Mandrel at 180$^{\circ}$</td> <td>No crack</td> </tr> <tr> <td>Erichsen</td> <td>Erichsen tester</td> <td>Above 6mm</td> </tr> <tr> <td>Salt spray resistance</td> <td>Salt spray tester, 240hrs</td> <td>Under 3mm</td> </tr> </tbody> </table> <p>* Salt spray resistance according to substrate and surface treatment.</p>	Property	Test Description	Result	Adhesion	Cross-cut 100/100, 1mm tester	100/100	Gloss	Dupont Impact Tester(1/2"Φ)	500g/30cm	Bending	6mm Mandrel at 180 $^{\circ}$	No crack	Erichsen	Erichsen tester	Above 6mm	Salt spray resistance	Salt spray tester, 240hrs	Under 3mm
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Specific gravity	Air Pycnometer Method 1.3 ~ 1.7 g/cm 3 according to color																		
Spreading rate (Theoretical)	60 μ m dry film thickness 9.3 ~ 12.2 m 2 /kg * There is difference in recovery ratio of powder																		

Application details

Surface preparation	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 or Zinc Phosphate * Aluminum : Chromate						
Film thickness	Dry film thickness : 50~90 μ m						
Drying time	The following theoretical curing schedules are recommended to achieve the best performance properties. <table border="1" data-bbox="296 1648 1121 1850"> <thead> <tr> <th>Temperature</th> <th>Cure Time</th> </tr> </thead> <tbody> <tr> <td>180$^{\circ}$C (356$^{\circ}$F) Gloss</td> <td>10 minutes(M.P.T)</td> </tr> <tr> <td>180$^{\circ}$C (356$^{\circ}$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 $^{\circ}$ C (356 $^{\circ}$ F) Gloss	10 minutes(M.P.T)	180 $^{\circ}$ C (356 $^{\circ}$ F) Semi-gloss, Flat-gloss	14 minutes(M.P.T)
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Storage and package

Shelf life	12 months at 25 $^{\circ}$ C(77 $^{\circ}$ F) with relative humidity 65% sealed state cool and dry place (Cooler temperature and lower humidity are recommended)
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Packing Unit | 20 kg

Remarks	
Handling	1. Do not mix the powder with other powder even if it is small amount.
Precautions	2. Recovered powders should be incorporated with virgin powders for re-use, only after sieving and at a recommended maximum of 30%. 3. Keep the curing condition. 1) Exact application and cure conditions need to be followed to maintain consistent metallic finish and properties. 2) Colors and patterns could be differed by spray gun or substrate. 3) Prevent the inflow of dirt and pollutant, because it is easy to find crater or dirt 4. Separation of metallic and mica pigments can take place from the powder during application. 5. In principle, it is not recommend to paint metallic powder coating unilaterally. 6. Clear top coating is recommended where chemical resistance is required.
1'st issue	2018-10-24
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.

