



KARUMEL EX8816(M) is a epoxy/polyester resin based thermosetting powder coatings with metal finished appearance by mixing metallic pigment.

Recommended use	As a protective and decorative coating for use on electric home appliances, building materials, office equipments, etc. * Not recommended for exterior. * It is recommended to paint clear top to prevent yellowing from moisture, chemicals and thinner.
------------------------	---

Physical Properties

Finish and Color	Metallic Colors and patterns are available on request.																																	
Dried film Properties	The data are typical for EX8816(M) 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. <table><tr><th>Property</th><th>Test Description</th><th>Result</th></tr><tr><td>Adhesion</td><td>Cross-cut 100/100, 1mm tester</td><td>100/100</td></tr><tr><td>Gloss</td><td>Glossmeter, 60°</td><td>Min. 85%</td></tr><tr><td>Impact</td><td>Dupont Impact Tester(1/2"Φ)</td><td>500g/30cm</td></tr><tr><td>Bending</td><td>6mm Mandrel at 180°</td><td>No cracking</td></tr></table> * After clear top coating(50μm) [PX8576-CLEAR(TOP)] <table><tr><th>Property</th><th>Test Description</th><th>Result</th></tr><tr><td>Adhesion</td><td>Cross-cut 100/100, 1mm tester</td><td>100/100</td></tr><tr><td>Gloss</td><td>Glossmeter, 60°</td><td>Min. 85%</td></tr><tr><td>Impact</td><td>Dupont Impact Tester(1/2"Φ)</td><td>500g/30cm</td></tr><tr><td>Chemical Resistance</td><td>5% H₂SO₄, 48hrs</td><td>Good</td></tr><tr><td>Salt spray Resistance</td><td>Salt spray tester, 240hrs</td><td>Under 3mm</td></tr></table> - Salt spray resistance according to substrate and surface treatment.	Property	Test Description	Result	Adhesion	Cross-cut 100/100, 1mm tester	100/100	Gloss	Glossmeter, 60°	Min. 85%	Impact	Dupont Impact Tester(1/2"Φ)	500g/30cm	Bending	6mm Mandrel at 180°	No cracking	Property	Test Description	Result	Adhesion	Cross-cut 100/100, 1mm tester	100/100	Gloss	Glossmeter, 60°	Min. 85%	Impact	Dupont Impact Tester(1/2"Φ)	500g/30cm	Chemical Resistance	5% H ₂ SO ₄ , 48hrs	Good	Salt spray Resistance	Salt spray tester, 240hrs	Under 3mm
Property	Test Description	Result																																
Adhesion	Cross-cut 100/100, 1mm tester	100/100																																
Gloss	Glossmeter, 60°	Min. 85%																																
Impact	Dupont Impact Tester(1/2"Φ)	500g/30cm																																
Bending	6mm Mandrel at 180°	No cracking																																
Property	Test Description	Result																																
Adhesion	Cross-cut 100/100, 1mm tester	100/100																																
Gloss	Glossmeter, 60°	Min. 85%																																
Impact	Dupont Impact Tester(1/2"Φ)	500g/30cm																																
Chemical Resistance	5% H ₂ SO ₄ , 48hrs	Good																																
Salt spray Resistance	Salt spray tester, 240hrs	Under 3mm																																
Specific gravity	Air Pycnometer method 1.2~1.7, according to color																																	
Spreading rate (Theoretical)	60μm dry film thickenss : 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.

Temperature	Cure Time
180°C (356°F) Gloss	10 minutes (M.P.T)
200°C (392°F) Gloss	5 minutes (M.P.T)
180°C (356°F) Semi-gloss, Flat-gloss	14 minutes (M.P.T)

* The cure time may have deviations influenced by various factors.

* M.P.T means metal peak temperature.

Storage and package	
Shelf life	12 months at 25°C (77°F) with relative humidity 65% sealed state cool and dry place (Cooler temperature and lower humidity are recommended)
Packing Unit	15kg, 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	2011-02-01
Revision	2018-10-31

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.

