

KARUMEL DS1350 is a polyester resin based thermosetting powder coatings designed to meet the standard AAMA2603 and Qualicoat Class I (Approval P-No : P-1627). This TGIC-FREE powder coatings has glossy, excellent color stability, adhesion, corrosion and weathering resistance along with the aesthetic performance.

Recommended use	As a protective and decorative coating for use on exterior and interior of the aluminum panel, bar, etc. where weather resistance to be required
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Physical Properties

Dried film Properties	The data are typical for KARUMEL DS1350 applied to chrome-conversion Aluminum a thickness of 70 μ m, and cured at 200 $^{\circ}$ C for 10 minutes.			
	Property	Test Method	Acceptance Criteria	Results
	Adhesion	ISO 2409 or ASTM D3359	cross-cut 100/100, (2mm)	100/100
	Hardness	ASTM D3363	MITSUBISHI UNI Pencil HB ~ H	HB-H
	Indentation	ISO 2815	80 minimum	100
	Impact	ISO 6272 or ASTM D2794	No detachment @ 2.5 Nm	No detachment
	Bending	ISO 1519 or ASTM D552	5mm minimum	No detachment
	Cupping	ISO 1520 or ASTM E643	Erichsen tester 5mm minimum	No detachment
	Resistance to humid atmospheres containing sulphur dioxide	ISO 3231	No Infiltration exceeding 1 mm No color change No blistering	Accepted
	Acetic acid salt spray	ISO 9227	Length of filaments : max 4 mm Infiltration : max 16 mm ² /10cm	Accepted
	Resistance boiling Water	-	No defect	No defect
	Constant Climate condensation water	ISO 6270-2	No Infiltration exceeding 1 mm <i>No blistering</i>	Accepted
	Resistance to Mortar	EN 12206-1	No defects	No defects
	Accelerated weathering	ISO 16474-2	Gloss retention \geq 50 % Color variation(Delta E) max 2 (The above data is for white. It may differ depending on color.)	Accepted

POWDER PROPERTIES	Property	Test Description	Results
	Finish and color	Standard Color	Colors are available on request, But limited (for weathering)
	Gloss	ISO 2813 (60 $^{\circ}$)	Glossy (70 GU minimum)
	Specific Gravity	AIR PYCNOMETER METHOD	1.3~1.7 according to color
	Theoretical Coverage	60 μ m dry film thickness	9.3 ~ 12.2 m ² /kg

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:	
	Type	Pre-treatment
	Aluminum	Chromate
Steel	Iron Phosphate or Zinc Phosphate	

Drying time	The following theoretical curing schedules are recommended to achieve the best performance properties.	
	Temperature	Cure Time
	200°C	10 ~ 25 minutes (Metal Temperature)
	210°C	9 ~ 24 minutes (Metal Temperature)
* The cure time is varied according to various factors.		

Storage and package	
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Shelf life	12 months
Storage	At 25°C with relative humidity 65% sealed state (77°F) cool and dry place (Cooler temperature and lower humidity are recommended)
Packing Unit	20 kg

Remarks	
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Handling Precautions	<ul style="list-style-type: none"> Do not mix with any other type of powder to avoid the reduction of gloss and defect of physical properties. The mixing ratio of reclaim powder with virgin powder should be less than 20% and should be well sieved prior to being mixed.
Note	<ul style="list-style-type: none"> The user of the product is strongly recommended to refer to the Material Safety Data Sheet (MSDS) for information and guidelines relating to product safety and hazards prior to using the product. All information is based on laboratory testing and practical experience, and is believed to be accurate in all forms and contents. KCC Corporation SHALL NOT BEAR ANY RESPONSIBILITIES FOR ANY DAMAGES RESULTING ARISING FROM THE USER'S APPLICATION OF KCC'S PRODUCT BEYOND THE RECOMMENDATION SET OUT IN THIS WARRANTY. The user should always consult KCC sales representatives for any inquiries or concerns relating to product application and warranty. KCC has the right to amend the content of this data sheet without notice, and the latest version supersedes all previous issued data sheet.
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Revision	

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