İBA KİMYA SAN. ve TİC. A.Ş.
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IBAHEAT – EE56

Technical Data Sheet

Description

IBAHEAT – EE56 is a thermosetting powder coating based on acrylic silicone resins providing after complete curing, a film with high thermic resistance. IBAHEAT – EE56 will resist to continuous exposure to temperatures as high as 330°C. IBAHEAT – EE56 series can be produced with FDA approval upon request.

Characteristics

Black and metallic grey colours
Less waste and pollution to the environment
Suitable for most indoor environments
Service temperature 330°C for long exposures and peak temperature 350°C.
One coat finishes
Very good mar resistance
Pencil hardness is 3H when it is properly cured
Anti-adherent properties for oils and fats
Oils and fats can easily be removed with water and current housekeeping detergents
FDA approved upon request

Applications

External coatings of cooking utensils
Barbecue sets and accessories
Coating of heat devices
Protective coating of electrical appliances operating at elevated temperatures

Product Properties

UV Resistance	Good UV resistance.
Flow out	Medium
Surface	Semigloss HR – Semimatt CS – Matt CS – Structure ST
Specific gravity	1.7-1.9 gr/cm3
Shelf Life	12 months (< 30°C and < 50% RH)

Application Data

Application	Corona (Can be applied by tribo guns if product code has “T” for the 6th character)
Curing	210°C 10 minutes recommended
Film Thickness	50-60µ (recommended)

Theoretical cons. 8-10 m^2/kg. Practical spreading rates will vary due to such factors as method and conditions of application, specific gravity, surface profile and texture.

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Coating Properties

Test results shown below are based on 0.5 mm steel with 60µ applied powder coatings.

Direct Impact	>20 kgcm	(ISO 6272-2)
Reverse Impact	>10 kgcm	(ISO 6272-2)
Buchholz Hardness	>100	(ISO 2815)
Conical Mandrel	< 20 mm	(ISO 6860)
Cross Hatch Adhesion	Gt:0	(ISO 2409)

Application Guide

Surface Preparation
All surfaces should be degreased and pretreated for optimal performance.
IBAHEAT – EE56 series is preferably applied onto slightly shot blasted metals.
for steel : fine steel shot or grit
for aluminium, zinc other non-ferrous metal : corundum

WARNING ! because of the high service temperature reached by IBAHEAT – EE56, it is not advised to apply any type of chemical pretreatment.

Application Procedure and Equipment
IBAHEAT – EE56 series powder coatings charging properties are optimized when powder is free-flowing and moisture-free. Aged or compacted powder may require preconditioning for several minutes to fluidise evenly.
If storage room temperature is lower than the application area, powder coatings, which are hygroscopic, should be acclimated in unopened containers prior to adding into the spray hopper. For optimum performance, It should be applied and stored at air-conditioning area. Storage temperatures should be kept below 30°C.
Powder should not be stored in hoppers for long periods of time. If moisture condensation occurs, fluidize powder to dry-out or replace moisture-laden powder with virgin powder.
Powder coatings are finely ground particulates. Respirators or dust masks should be used by workers exposed to powder in order to avoid dust inhalation.
Compressed air to the gun must be oil and moisture free.
Silicone should not be used in application area.
For box feeders, ensure probe is fully inserted in powder and operated as per manufacturer's recommendations.
Contact points should be maintained to ensure metal-to-metal ground.
Apply by electrostatic spray. Relative humidity should be 50-60% for corona system, lower than 40% for tribo system.
Cure as per recommendations outlined above.
Reclaim-to-virgin ratios should be carefully monitored to maintain spray consistency.
Sieving powder before adding to hopper eliminates potential clumping or foreign matter.
Test for cure of the coating by impact test.

Care and Maintenance

IBAHEAT – EE56 should be regularly washed with warm water and mild liquid detergent, followed by a fresh water rinse to maintain the attractive appearance of the powder cured film.
The use of abrasive cleaners is not recommended, nor is the use of active organic solvents.

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Health and Safety

The SDS is an integral part of using this product as it contains information on the potential health effect of exposure, personal protective equipment needed. It is recommended to contact to Sales and Customer Service Offices for further information.

Precautions and Limitations

The temperature resistance of the IBAHEAT – EE56 series may vary depending on the application conditions, such as the heating rate of the material and the ambient conditions in the application, it must be checked by making tests in the end use system. As a result of possible wide application variations and stoving conditions, IBAHEAT – EE56 may show variation, between İBA Kimya Powder Coatings prepared samples and production applied material. Therefore, it is the applicator and/or their customer's responsibility to ensure the product conforms to their requirements.
For optimum corrosion performance ensures recommended dry film thickness is obtained.
Not recommended for exterior applications.
The powder film gets softening at high temperature (~300°C). Do not contact with hard materials at high temperatures.
IBAHEAT – EE56 is not suitable for direct contact with open flame.

Transport and Storage

Packaging	15-20-25 kgs. Heavy polyethylene bag in a corrugated carton
Shipment	Not dangerous goods. No special transport requirements.
Storage Conditions	Storage temperatures should be kept below 30 C° and 50% relative humidity. Powder should be stored in closed containers.

DISCLAIMER: All the information provided in this data sheet depends on our knowledge and experience up to date and may be subject to revision as new technology and experience evolve. Since the conditions of application may vary depending on the substrate, physical conditions and other variables, users should conduct necessary tests to determine the conformity of the product for its intended use. We do not accept liability since the application, use and processing of the products take place beyond our control and supervision. Moreover, our liability for breach of warranty is exclusively limited to replacement of the product or refund of its price and we are not liable for incidental, indirect or consequential damages under any circumstances.