İBA KİMYA SAN. ve TİC. A.Ş.
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EE72

Technical Data Sheet

Description

EE72 is an epoxy powder coating for busbars, tubes, pipeline systems; and very fast curing, thermosetting powder coating based on especially selected epoxy resins and hardeners and formulated in order to meet the requirements of electrical insulation for busbar.

Characteristics

Excellent flexibility
Bending after coating
Very good mechanical properties
Less waste and pollution to the environment
High breakdown voltage
Suitable for electrical insulation
Less waste and pollution to the environment
Suitable hot melt adhesives with optimal adhesion
Exceptionally fast cure
Low energy requirement for application
Exceptionally tough film
Excellent corrosion resistance

Applications

Busbars
Tubes
Pipeline systems
Industrial applications

Product Properties

UV Resistance	Not recommended for exterior use.
Flow out	Good
Surface	Smooth
Specific gravity	1,4-1,6 gr/cm3 (low with dark colours, high with light colours)
Shelf Life	6 months (< 30°C and < 50% RH)

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Application Data

Application	Corona/Tribo (Can be applied by tribo guns if product code has "T" for the 6th character)
Curing	**EE72** series can be formulated from 130°C up to 160°C/10 minutes metal temperature depending on the application area and application method. Please check the PSS of the product about the curing conditions. It can be applied on preheated substrates (>160-190°C) and cured by residual heat
	Metal Temperature (°C) Time (minutes)
	Temp mentioned at PSS 10 (for quality control test)
Film Thickness	90-110 µm (recommended) Can vary depending on the application area
Theoretical cons.	6,5-7,5 m^2/kg. Practical spreading rates will vary due to such factors as method and conditions of application, specific gravity, surface profile and texture.

Coating Properties

Test results shown below are based on 0.5 mm steel with 100µ applied powder coatings.

Direct Impact	>40 kgcm	(ISO 6272-2)
Reverse Impact	>40 kgcm	(ISO 6272-2)
Buchholz Hardness	>90	(ISO 2815)
Cylindrical Mandrel	< 3 mm	(ISO 6860)
Cross Hatch Adhesion	Gt:0	(ISO 2409)
Dielectric Strength	>30 V/µm	(ASTM D5162)
Abrasion resistance	< 0.10 gr	(ISO 5470-1)
Weight loss 12 hrs 250 °C	< %2.0	

Application Guide

Surface Preparation

All surfaces should be degreased and pretreated for optimal performance.
Suitable pretreatment includes:

Aluminium	Yellow chromate or green chromate/phosphate
Ferrous metals	Zinc phosphate or Iron phosphate
Zinc Coated Metals	Zinc phosphate or chromate

Application Procedure and Equipment

EE72 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.

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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

EE72 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.

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

As a result of possible wide application variations and stoving conditions, **EE72** 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 use in highly corrosive environments.
Not recommended for exterior applications.
Due to high epoxy content, sensitive to heat; easy to yellow on light colours.

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.