İBA KİMYA SAN. ve TİC. A.Ş.
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PU48

Technical Data Sheet

Description

PU48 is an exterior durable thermosetting powder coating based on polyurethane resins designed for oil and heat resistance. It features excellent chemical resistance and superior weather resistance.

Characteristics

Available for all colors
Excellent chemical resistance
Resists solvents, oils and detergents
Excellent heat resistance to 120°C continuous service conditions
Very good yellowing resistance with less yellowing at high temperature and by the time
Suitable for most environments
Less waste and pollution to the environment
Tgic free

Applications

All types of hot surface applications such as toasters, ovens

Product Properties

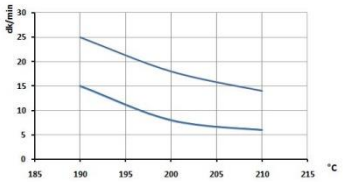
UV Resistance	Good UV resistance
Flow out	Very good
Surface	Gloss GL – Semigloss HR
Specific gravity	1.5-1.8 gr/cm^3 (low with dark colours, high with light colours)
Shelf Life	12 months (< 30°C and < 50% RH)

Application Data

Application: Corona (Can be applied by tribo guns if product code has "T" for the 6th character)

Curing: 200°C 10 minutes recommended

Metal Temperature (°C)	Time (minutes)
190	15-25
200	8-18
210	5-14



Film Thickness: 60-80 µm (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	>20 kgcm	(ISO 6272-2)	
Buchholz Hardness	>90	(ISO 2815)	
Conical Mandrel	0 mm	(ISO 6860)	
Cross Hatch Adhesion	Gt:0	(ISO 2409)	
Chemical Resistance	Methyl Ethyl Ketone MEK		resistant
	Ethanol		resistant
	Ethyl Acetate		resistant
	10% Acetic Acid		resistant
	10% Hydrochloric Acid		resistant
	Vegetable oil @ 135 °C/3 hrs		resistant

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
PU48 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

PU48 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

As a result of possible wide application variations and stoving conditions, PU48 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 performance ensures recommended dry film thickness is obtained.

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.