

## IBAROCKS

# Technical Data Sheet

### Description

**PE58 grain structure series (GR)** are Qualicoat Class 1 Category 1 approved powder coatings designed specifically for architectural applications. Colour stability and gloss retention are within the specification after 10 years. These coatings protect the coated materials against external influences and give aesthetic appearance by their natural stone effect.

### Characteristics

Aesthetic appearance with natural stone effect  
Improved application characteristics  
Less waste and pollution to the environment

### Applications

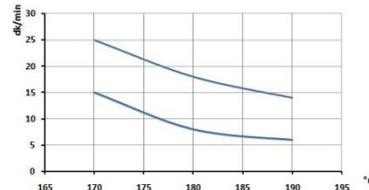
Metal furniture  
Lighting equipment  
Steel doors  
Architectural applications  
Decorative applications

### Product Properties

**Colour** Mixed, metallic and opaque stone colors  
Various colours can be seen at IBAROCKS 25.th Colour Collection catalogue.  
**Surface** Grain Structure GR  
**Specific gravity** 1.4-1.7 gr/cm<sup>3</sup> (low with dark colours, high with light colours)  
**Shelf Life** 24 months (< 30°C and < 50% RH)

### Application Data

**Application** Corona/Tribo (Can be applied by tribo guns if product code has "T" for the 6th character)  
**Curing** 180°C 10 minutes recommended  
Metal Temperature (°C) Time (minutes)  
170 15-25  
180 8-18  
190 5-14



**Film Thickness** 70-80 µm (recommended)

**Theoretical cons.** 8-10 m<sup>2</sup>/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

*For IBAROCKS Grain Structure appearances:*

Tests	Colours Tested		
	RAL3005	RAL 5010	RAL 9007
Adhesion (ISO 2409)	0	0	0
Buchholdz (ISO 2815)	>80	>80	>80
Cupping test (ISO 1520)	No cracking at a diameter of 5 mm	No cracking at a diameter of 5 mm	No cracking at a diameter of 5 mm
Bend test (ISO 1519)	No cracking at a diameter of 5 mm	No cracking at a diameter of 5 mm	No cracking at a diameter of 5 mm
Impact test (ISO 6272-2/ASTM D 2794)	No cracking at 2,5 Nm	No cracking at 2,5 Nm	No cracking at 2,5 Nm
Kesternich (ISO 3231)	No penetration or detachment beyond 1 mm	No penetration or detachment beyond 1 mm	No penetration or detachment beyond 1 mm
Acetic acid salt spray resistance (ISO 9227) / 1000 hrs	Conforming to QUALICOAT specification	Conforming to QUALICOAT specification	Conforming to QUALICOAT specification
Accelerated weathering test (ISO 16474-2)	Residual Value (not less than 50%)	Residual Value (not less than 50%)	Residual Value (not less than 50%)
Resistance to mortar (EN 12206-1)	No defects no detachment	No defects no detachment	No defects no detachment
Resistance to boiling water	No defects no detachment	No defects no detachment	No defects no detachment
Humidity Test (ISO 6270-2)	No defects no detachment	No defects no detachment	No defects no detachment

## 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

**PE58 grain structure series (GR)** 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.

Test for cure of the coating by impact test.

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**Attention!** As it has a natural stone effect, minimal effect variations may occur between products/lots, just like in nature. It is not recommended to add recycling powder as deviations may be occur in grain structure.

### Care and Maintenance

**PE58 grain structure series (GR)** powder coatings 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. Use a soft cloth that does not scratch the surface. The detergent used for non-chemical resistant products should have a neutral pH. The surface should not be left with detergent for a long time and should be rinsed immediately with water. 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, **PE58 grain structure series (GR)** powder coatings 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.

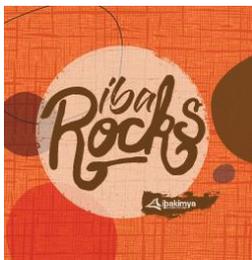
For optimum performance ensures recommended dry film thickness is obtained.

If application will apply on steel material, it is recommended to be used on corrosion primer (IBASHIELD) for long-term corrosion resistance.

It is recommended to check IBAMIX TDS for mixed effect and IBASHINE TDS for metallic effect.

### Transport and Storage

<b>Packaging</b>	20-25 kgs. Heavy polyethylene bag in a corrugated carton
<b>Shipment</b>	Not dangerous goods. No special transport requirements.
<b>Storage Conditions</b>	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.*