



etika

As Etika Powder Coatings, we have been manufacturing powder coatings of high quality in Istanbul/Turkey since 2006. With its rich background of Research & Development activities, always stays focused on latest technological development & nurturing of innovative ideas. Our Research and Development team always strive for delivering new products and finishes that fulfill customer needs. Our development work is poised to deliver technology in an environmentally friendly way.

Etika Powder Coatings R&D is well equipped with all types of latest testing instruments required for development application, and performance testing.

Our long years of research has enriched the powder coating product basket. Apart from regularly available products based on Pure Epoxy, Pure Polyester (Both TGIC & Non TGIC based), Epoxy-Polyester Hybrid & Poly-Urethane, specially attributed products like Antistatic coatings, Flame Resistance coating, Architectural grade super durable coatings, Low Bake coatings, Fast Cure coating, Coatings suitable for extreme conditions such as high level of Chemical & corrosion protection in single coat and dual coat are also established. Differentiated products like Metallic finishes with Brilliant Metallic Lustre, Bright fluorescent Finishes and Powder Coating suitable for wood grain/sublimation technology have also been introduced over the years.

Our dedicated team of technical service persons backed by R&D provide on-time solutions to resolve customer line issues and recommend suitable products for new applications. R&D takes an active part in new product introduction and establishing new products at customer premises.

CERTIFICATE

for a POWDER MANUFACTURER



hereby authorises

Etika Endüstriyel Boyalar San. Tic. Ltd.
Birlik Organize Sanayi Bölgesi Batı Cad. 2. Sok. No:5
Tuzla, İstanbul
Turkey

to use the quality label in conformity with the
QUALICOAT 2023 Specifications, applicable from 1 January 2023

Material: Powder Coating
System name: POLYESTER PRIMID MAT
Gloss category: 1
Class: 1
Structured finish: No structured finish
Metallic extension: Yes
Banned colour(s): -
Suspended colour(s): -
Approval type: standard approval
P-No: P-1821

Date of granting: 13.10.2021
Valid until: 31.12.2023

Zurich, 1 January 2023

QUALICOAT

Ivo Vermeeren
Ivo Vermeeren
President

CERTIFICATION BODY



Pascale Bellot
Pascale Bellot
Secretary General



QUALICOAT | Tödistrasse 48, 8002 Zurich, Switzerland | www.qualicoat.net

CERTIFICATE

for a POWDER MANUFACTURER



hereby authorises

Etika Endüstriyel Boyalar San. Tic. Ltd.
Birlik Organize Sanayi Bölgesi Batı Cad. 2. Sok. No:5
Tuzla, İstanbul
Turkey

to use the quality label in conformity with the
QUALICOAT 2023 Specifications, applicable from 1 January 2023

Material: Powder Coating
System name: PP-PARLAK (TGIC FREE)
Gloss category: 3
Class: 1
Structured finish: No structured finish
Metallic extension: Yes
Banned colour(s): RAL 7030
Suspended colour(s): -
Approval type: standard approval
P-No: P-1689

Date of granting: 14.01.2020
Valid until: 31.12.2023

Zurich, 1 January 2023

QUALICOAT

Ivo Vermeeren
Ivo Vermeeren
President

CERTIFICATION BODY



Pascale Bellot
Pascale Bellot
Secretary General



QUALICOAT | Tödistrasse 48, 8002 Zurich, Switzerland | www.qualicoat.net



T.C. TARIM VE ORMAN BAKANLIĞI
T.C. MINISTRY OF AGRICULTURE AND FORESTRY

İNTERTEK TEST HİZMETLERİ A.Ş.
İSTANBUL ÖZEL GIDA KONTROL LABORATUVARI
İNTERTEK İSTANBUL PRIVATE FOOD CONTROL
LABORATORY



MUAYENE VE ANALİZ RAPORU
EXAMINATION & ANALYSIS REPORT

Total Quality. Assured.

Rapor No / Report No: F510174451 Yayımlandığı Tarih / Date: 30/06/2022

Analiz Amacı / Purpose of Analysis: Özel İstek / Private Demand

Müşteri Bilgileri / Customer Information

Müşteri Adı / Customer Name: Etika Endüstriyel Boyalar San. Tic. Ltd. Şti.
Adres / Address: Birlik OSB. Mah., Batı Cad. 2. Sok. No: 5, Tuzla, İstanbul, TÜRKİYE.

Numune Bilgileri / Sample Information

Adı / Name	Metin	Numunenin Fotoğrafı / Sample Photo
Üretici Adı / Producer Name		
Tarım ve Seri - Parti No / Description and Batch Number		
Üretim ve Son Kullanma Tarihleri / Production & Expiry Date-SEE	22.02.2022	
Ambalaj ve Miktar / Package and Quantity	3x adet / samples	
İlgili Kişi / Contact Person	Mustafa Çevik [mcevik@etikapowder.com]	
Numune kabul tarihi / Sample received / transport by	01/06/2022 (soru / parcel services)	
Numune alınması süresi / Sample time when received		
Numunenin teslim alın ve mühür / Submitted by & Seal	Müşteri Mühürü / Client Nonseal	
Teklif No / Quotation No	1436	
Analiz başlama ve bitiş zamanı / Start / End of analysis	01.06.2022 / 30.06.2022	

Açıklamalar / Remarks

Özelliklerin Denetimi / Control of Properties: Mükemmel Analiz Birimi / Superior Laboratory
Denetimci / Supervisor: Mustafa Hamamcıoğlu / Mustafa Hamamcıoğlu
Denetimci / Supervisor of Sample Receiving and Reporting: Mustafa Hamamcıoğlu / Mustafa Hamamcıoğlu

[Signature]
30/06/2022
Tayidk Oluşur / Approved by
Laboratuvar Müdürü / Laboratory Manager
Ali Unlut Akbulut

Bu analiz raporu, analiz için gönderilen ve teslim alınan numunelerin analiz raporunun hiçbir bölümünü laboratuvarımız için kullanılmadıkla ilgili olarak hazırlanmıştır. Bu rapor, rapor için kullanılan numunenin sadece analiz sonuçlarını göstermektedir ve laboratuvarımız tarafından hazırlanmış bir doküman değildir. Raporun içeriğini ve kapsamını laboratuvarımızın internet sitesinde bulunan analiz raporlarının açıklamasında bulabilirsiniz. Bu raporun içeriği, analiz sonuçları ve laboratuvarımız tarafından hazırlanmış diğer dokümanlar yalnızca laboratuvarımızın kontrolünde kullanılmalıdır. Raporun içeriğini ve kapsamını laboratuvarımızın internet sitesinde bulunan analiz raporlarının açıklamasında bulabilirsiniz. Bu raporun içeriği, analiz sonuçları ve laboratuvarımız tarafından hazırlanmış diğer dokümanlar yalnızca laboratuvarımızın kontrolünde kullanılmalıdır.

Etika Test Hizmetleri A.Ş.
Merkezi Mühürler Sarayı Çaldıran No:23 Akhüyük Plaza
Tuzla - İstanbul 34937
Web: <http://www.etikaindustriyel.com>

Telefon: +90 212 496 45 46
Faks: +90 212 452 20 55

E-posta: intertek.turkey@etika.com.tr, foodlab.turkey@intertek.com

Sayfa / Toplam Sayfa / 1 / 1
Page / Total Page



TEST REPORT Page 1 of 5

REPORT NUMBER : TURT220036482
APPLICANT NAME : Etika Endüstriyel Boyalar San. Tic. Ltd. Şti.
ADDRESS : Birlik OSB. Mah., Batı Cad. 2. Sok. No: 5 Tuzla İstanbul / TÜRKİYE
Attention : Mustafa Çevik (mcevik@etikapowder.com)
SAMPLE DESCRIPTION : One sample of Red powder paint
DATE IN : 31 March , 2022 (14:00:00)
DATE OUT : 6 April , 2022
REQUEST : Roche Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU

PART	DESCRIPTION	CONCLUSION
Sample 1	Sample	Pass

This report (including any enclosures and attachments) are prepared for the exclusive use of the Customer(s) named in the report and solely for the purposes for which it is provided and on the basis of instructions and information and/or materials supplied by Intertek's Customer. The test results relate only to the specific items tested and errors intended to be a recommendation for any particular course of action. Customer is responsible for acting on the basis of such results. Unless Intertek provide express prior written consent, no part of this report should be reproduced, distributed or communicated to any third party, nor could it be used for PR activities. Intertek do not accept any liability if this report is used for an alternative purpose from which it is intended, nor do Intertek owe any duty of care to any third party in respect of this report. Except where explicitly agreed in writing, all work and services performed is governed by Intertek Standard Terms and Conditions of Service which is available on request or can be obtained at <http://www.intertek.com/terms>. Testing reports without signature are not valid. The sample has been provided by the customer and the results apply to the sample as received. Sample information is supplied by the customer. Unless otherwise requested, the laboratory applies standard risk decision rules. Unless otherwise specified, all Pass or Fail results are given without uncertainty considered. The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with ISO/IEC 17025 and the TURAM accreditation requirements. Tests marked (*) in this test report are not declared in the TURAM accreditation certificate for this laboratory. Intertek accredited by TÜRKAK under registration number AB-0716-T for ISO 9001:2015 (TC 17025) as test laboratory. Turkish Accreditation Agency (TURAM) is a signatory to the European cooperation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

[Signature]
Ezgi Aleyna ARI
Customer Care Executive

[Signature]
Zeynep AKIN
Chemical Laboratory Manager

Intertek Test Hizmetleri A.Ş.
Merkezi Mühürler Sarayı Cad. No: 23 Akhüyük Plaza Yenimahalle-34197-İSTANBUL
Phone : +90 212 496 45 46 Fax: +90 212 452 20 55
e-mail: intertek.turkey@intertek.com
<http://www.intertek-turkey.com>
220036482

Tests to Characterize Coating Powders

The table below lists the main tests that are performed on coating powders.

The reactivity of a thermoset coating powder is evaluated by gel time and inclined plate flow. How well the coating powder stands up under storage conditions can be inferred using a simple test called blocking or sintering. Blocking is usually a challenge with products having a low glass transition temperature during shipping.

Glass transition of the coating powder can be measured by differential scanning calorimeter. The physical nature of the powder particles (thermoset or thermoplastic) can be characterized by specific gravity, particle size distribution and various dry flow tests.

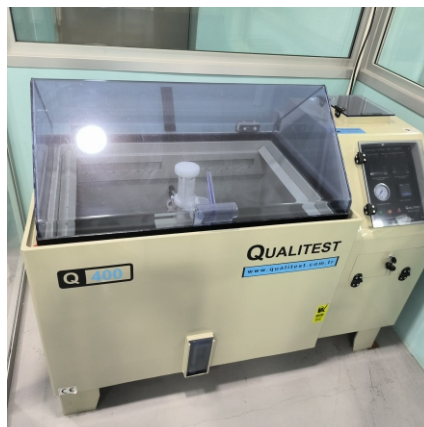
Test	Measurement	Need	Standards
Gel time	Gel time (seconds)	Hot plate, timer	○ ASTM D4217-07(2017) ISO 8130-6:1992
Inclined plate (plane) flow or Hot plate melt flow	Melt flow (mm)	Balance, pill press, oven, metal or glass plates in holder or hot plate at an angle	○ ASTM D4242-07(2017) ISO 8130-11:2019
Particle size	Particle size distribution	Standard sieves or laser diffraction particle sizer	○ ASTM D1921-18 ASTM D5861-07(2017) ISO 8130-13:2019
Blocking or Sintering	Storage stability	Oven, weights	○ ISO 8130-8:1994
Dry flow (by fluidization)	Fluidization factor	Fluid bed, ruler, timer	○ ISO 8130-5:1992
Dry flow (by angle of repose)	Height of cone or Angle of repose	Funnel, protractor	○ ASTM D6393-14 ISO 4324
Specific gravity (by calculation)	Ratio of material weight to volume	Densities and amounts of raw materials used in formulation, calculator	○ ASTM D5965-19
Specific gravity (by gas displacement)	Ratio of material weight to volume	Gas pycnometer, balance	○ ASTM D5965-19 ISO 8130-2:1992

In our laboratory, where the most professional and technological devices of the field are used, analysis and measurement processes are performed by our experienced engineers and chemists by keeping every stage of the production process under constant control.

Calibration and maintenance of our analyzers are performed periodically.



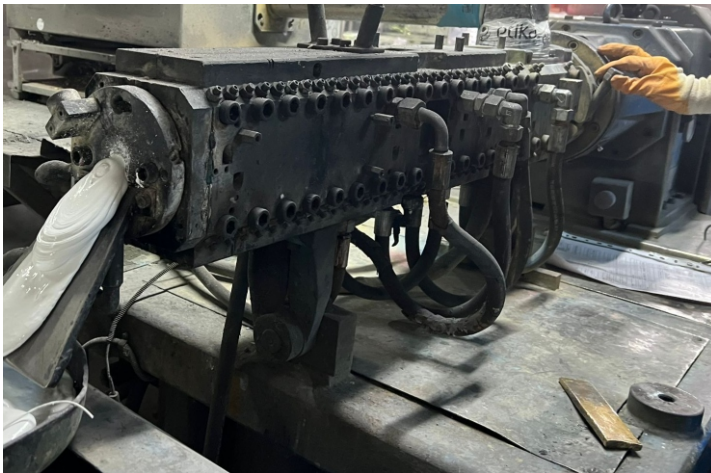
In our laboratory; In addition to routine analysis such as grain distribution, color measurement, moisture determination and mechanical strength tests, R&D studies are also performed.



Our production lines are equipped with modern, state-of-the-art machinery and equipment from the world's top quality brands. Before each stage of production, samples are taken and controlled and quality is kept at the highest level. We do our job with care and seriousness at every stage of our production, from design to packaging.



Our high efficiency production lines have an annual capacity of approximately 8000 tons.



In our warehouse, which has over a thousand color and effect types, durable packaging and suitable storage conditions are provided.



Storage conditions; It should be 25 C° on average.

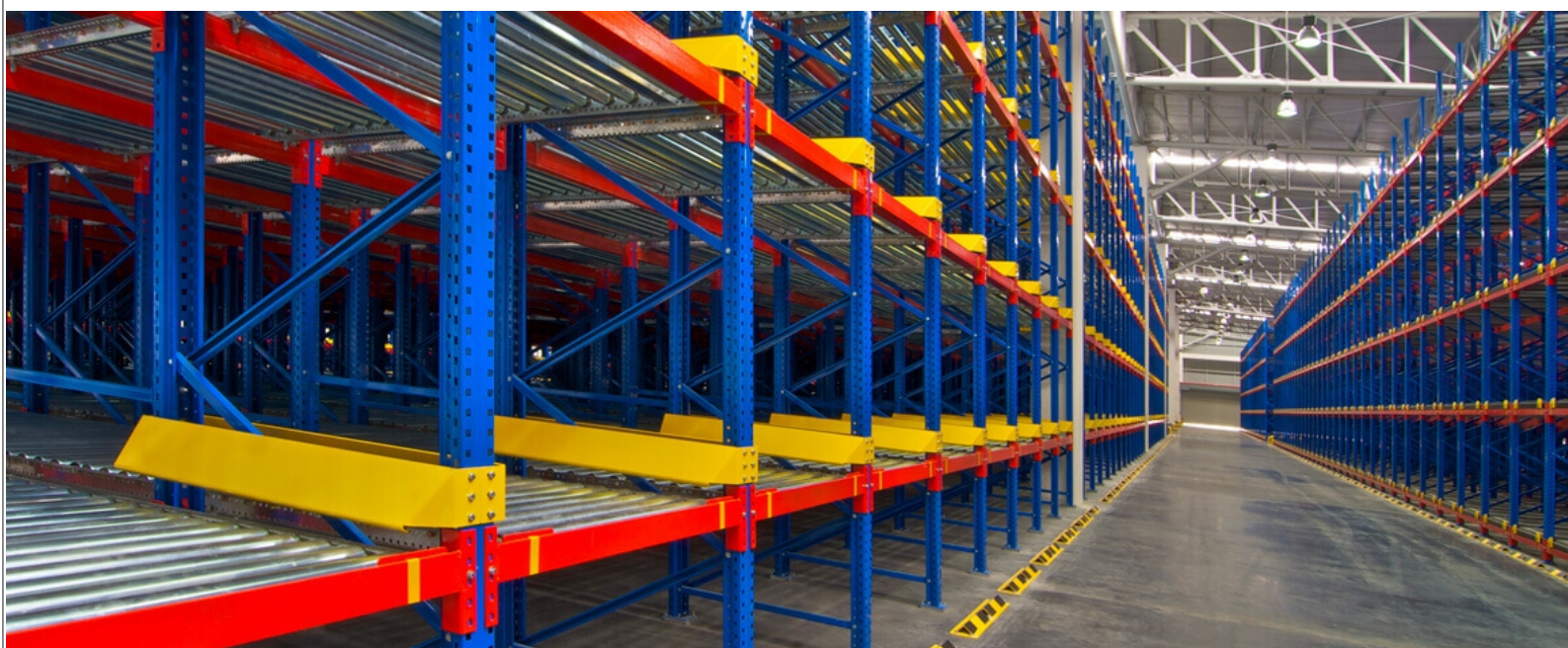


Epoxy powder coating is a thermoset polymer coating that is hard and also offers chemical resistance, flexibility, and high adhesion. This unique combination of thermal, physical, chemical, and mechanical properties makes Epoxy ideal for use as a functional coating for substrate protection for a variety of applications. Some examples include industrial equipment, automotive underbody components, metal furniture, and appliances.

Epoxy-based powder coating is not recommended for exposed, open-air environments or situations where exposure to ultraviolet radiance will cause chalking.



Epoxy-polyester powder coating (Hybrid) are general purpose coatings that have limited exposure to sunlight. These are the widely used powder Coating. They offer excellent hardness and have the best chemical and corrosion resistance of all available powders.



Polyester powder coating offer similar mechanical properties to epoxy and epoxy / polyester hybrid systems, however, the pure polyester is also resistant to chalking, color and gloss changes with exposure to sunlight. This series is recommended for both interior and exterior applications and are also suitable for thick film applications.



Polyurethane powder coating this is a different chemistry of powder coatings which offers excellent outdoor durability with better chemical resistance. We have three different grades on the basis of application.

- Anti-Graffiti Powder
- Architectural Powder
- Wood Coat Powder



Powder coating is a durable finish with superior quality that can be found on countless products that you often encounter daily. It is a method in which the surfaces are covered with dry powder. The powder coating itself does not need a solvent for keeping filler parts and binder in liquid form. Besides, powder coatings are much more durable, environmentally-friendly and safer for the whole family. Thus, this makes it a sustainable protective coating than some borne liquid paints. Nevertheless, powder coatings have become more and more popular compare to conventional paints. The reason is due tonumerous benefits that powder coating provides over the liquid paints.



Environmentally friendly

One of the key advantages powder coating has over other finishing processes is how safe it is for the environment and for the people who work with it. Unlike traditional solvent-based wet paint, powder coating is considered a “green” technology that doesn't generate harmful solvents or airborne pollutants.





etika

Aydınlı-Birlik OSB Mah. Batı Cad. 2. Sok. No:5 34953 Tuzla İstanbul Türkiye

Tel. +90216 304 05 66 (Pbx) Fax +90216 304 00 67
www.etikapowder.com info@etikapowder.com