

# TECHNICAL CERAMIC INDUSTRIAL FLOOR COATINGS

THE EXPERT SOLUTION PARTNER IN INDUSTRIAL CERAMIC COATINGS





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# Tekser Tile Range



Botti Taba



Water Absorption	<0.
Modulos of Rupture	Apr
Breaking Strength	Min
Deep Abrasion	: 5485
Linear Thermal Expansion	Tes
Resistance to acids and alcalids	req
Staining resistance	Tes
*Exception: Hydrofluoric adid(HF) and its	

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Maxidot D. Grey Maxidot L. Grey Sand Yellow

dow Tekser Beige

kser Beige Uni Beige

Uni B

Blue

Uni Mink

Uni Super White Uni Tobacco

#### ceramic products

)imensions:

Thickeess 10/18 m

HEXAGON TILES



The first decade of the company was dedicated to serving the coating needs of heavy duty industries (such as oil refineries, metal industry, acid pools etc.) which made TEKSER obtain huge experience in providing coatings that require highest chemical, thermal and mechanic loads.

TEKSER's range of products still include special mortars that are resistant to all kinds of concentrated acids up to 500 °C and high chemical resistance with a very wide range of chemicals up to 150 C.

The experience that is gained by the heavy duty industrial conditions provided TEKSER the expertise to meet the long term critical hygiene standards that have been demanded by food and beverage industry.

Making use of the worldwide renown Vibration System of Ceramic Tiling since 1996, TEKSER is the leading company with its innovations and inventions at industrial ceramic coatings within Turkey as well as neighboring markets.

Increasing hygiene demand, enforced the old production plants to renovate their floors. The excessive need for such renovations within her markets, made TEKSER gain lot of experience in renovations and made her one of the best companies worldwide for fast and durable floor renovations.

With more than thousand succesfully completed projects, 1,5 million sqm of tiling applications and hundreds of references including many international companies like Carrefour, Dr. Oetker, Coca-Cola, Heineken, Tuborg, Carlsberg, Efes, Ulker, Danone, Real, Metro, B&Q - Koctas, Milco, Migros. TEKSER serves according to international standards and has been accepted for its high quality all over the world.

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# ALWAYS CLEAN (HYGIENIC) & DURABLE FLOORS

## WHY CERAMIC?

Durability, easy cleaning and long lasting service life are musts for floors in food and beverage industries.

The flooring systems applied by Tekser has proved to be the right choice for food and beverage plants even after many years of service life.



Floor is one of the most critical elements in the construction of a facility. Floor is the basis of all production and all machines sit and operate on the floor. Like in the selection of the machineequipment parks, similar precision and care should be taken for the selection, preparation and application of industrial flooring systems, since the efficiency obtained from these valuable investments will highly depend on the floor that will carry them.

#### Advantages of Ceramic

- Enables heavy mechanical loads
- Chemical resistance
- Enables steam jet cleaning
- Thermal resistance

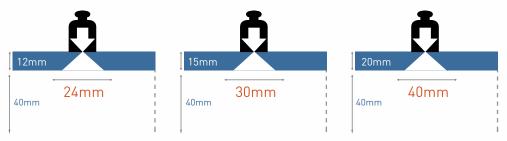
   No problem in service even above 100 °C
- Possibility of repair in small areas independently
- Resistant to abrasion Even harder than steel, only can be abrased by diamond.
- Heavy machines and production facilities can be mounted upon.
- Water absorption is less than 0,5
- No need for extra preventive coating.
- Easy to clean and low maintenance cost.

#### Tekser floors carry heavy loads.

Floors of industrial production plants can be exposed to tons of weight on a few square centimeters even the plants are out of operation. Vibrations, traffic and oscillations resulted from the running of production units will bring additional stress on the floors. Properly installed industrial ceramic floors will not be affected from any of those.

Loads weighing several tons are transported by heavy duty vehicles with rollers in industrial facilities.

The distribution of load on tiles according to the applied forces has been illustrated in the following pictures. The test results clearly indicate that the force required to break the structure will be higher with the increased thickness of the tile (when the tile is thicker). The load distribution ability of a tile depends on its thickness.



As the tile thickness increases, the base of the load cone gets wider. Thereby, high point-loads are evenly spread on the underlying structure. Thicker tiles ensures better protection of substructure. Compressive and bending strength increase with the increased tile thickness. For example, as the thickness of 14mm and 18mm tiles increases 29%, load distribution effect increases 65%.

#### Economical

Repairs of the damages on the floor is hard and has some serious results, such as the closure of the facility and the cease of the production. To plan at the beginning and choose the best material from the start is more economical and prevent other problems in the future. When a comparison is made between ceramics and other floor coatings within a 25 years of time span, it has been observed that, although in the beginning their initial investment cost was higher ceramic floors are more economical than the others because they did not need renewals in that time span.

#### Standards

The ceramic installation standards that TEKSER adopted for itself, has been shaped on the basis of demands from many international companies that were served. Thus today the standards for vibration tiling that Tekser obliges her installation teams, are above the most widely used and accepted standart in this field, namely the German AK-QR standards.

#### Security

There are different surfaces to ensure the best slip resistance and security for wet floors. Tiles with adequate slip resistance standards are chosen and applied at places with different slip resistance demands.

#### Durable

Some of the advantages of TEKSER Industrial Ceramic Floorings are thickness of the tile, abrasion resistant surface, durability and the right installation details that have been designed according to each flooring need. The floors resisting to chemical and physical loads for decades has made Tekser's name synonymous with durable, trouble free floor coatings.

#### Antibacterial/ Hygienic

With its dense and highly compacted body under pressure and heat, the absorption of industrial ceramics is zero in practice. This quality ensures that it won't absorb any dirt and implies that the floor is hygienic.

#### Easy to Maintain

Cleaning of the ceramics is easy. Security and hygiene experts want the floor coating to be resistant to oil, acids and basic solutions. And these are the main qualifications of ceramic floor systems.



## **TEKSER VIBRATION SYSTEM**

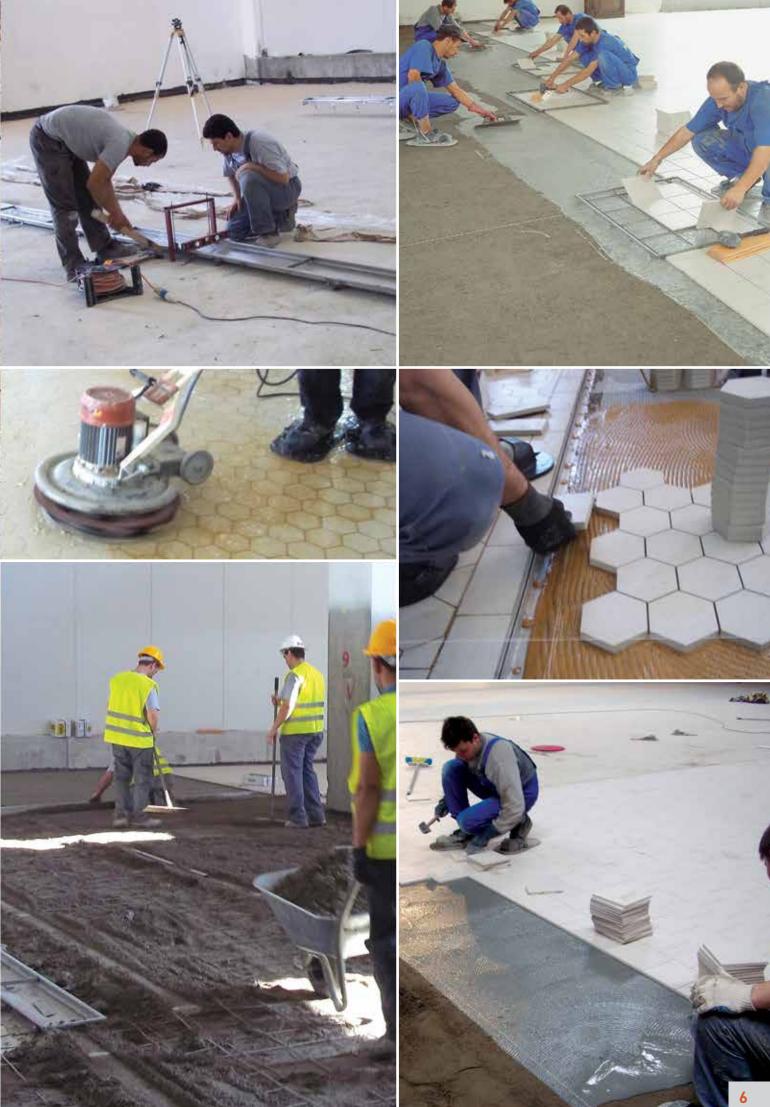
Vibration System of ceramic tiling is the most advanced and preferred tiling system for industrial and commercial floors with its high quality, durability and decorativeness. TEKSER Vibration System features ceramics from the best industrial tile producers and installation materials, building chemicals from renown building chemical producers worldwide. The high quality materials handled by professional teams of expertise are the key to trouble free turn-key projects. Project planning, slope determination, preparing necessary specifications, solving details and finishings are also important steps leading to a successful application.

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Tekser's commitment to its work, long years of experience in countless references brought her the reputation of a highest quality industrial ceramic contractor preferred by many companies worldwide.

Factory floors need to be done once and for all, with all kinds of details like slopes, coatings, finishings, etc. These tasks can only be accomplished by professional companies and expert team like Tekser.

Our TECHNOFLO Epoxy Grout and Adhesive material is chemically and mechanically tested by our company as well as an independent laboratory in Germany and these test results can be provided on request.



	VIBRATION SYSTEM	TRADITIONAL- Adhesive SYSTEM
А	Establishes a monolithic floor: Screed, adhesive slurry etc all elements of the floor cure together. There are no layers of separate curing at different days and times.	System hardens step by step. For example concrete hardens and then adhesive is applied over that.
В	Floor, concrete and tile, all are compressed together so the load capacity of the floor becomes maximum.	In this application concrete is not compressed only levelled with straight edge.
С	The screed is prepared as semi dry mortar with minimum water. Because of dehydration being less, concrete's strength is higher.	The screed has high slump thus have high water ratio leads to decreased strength due to dehydration.
D	Because the tiled surface is compressed with vibration machine, surface becomes much more smoother.	Because the tiles are set by hand into place, the surface would never be as smooth as it is with vibratory system.
E	Surface flatness deviation of industrial ceramic tiles within the range of production standards can be eliminated through the compaction of whole structure, and the tiles can be installed ensuring the flattest surface possible. There are no gaps under the tiles.	Surface flatness deviation of industrial ceramic tiles makes the installation of tiles harder by hand set with hammer. This will result in lippings and gaps under the tiles.
F	It allows narrow joint spaces like 2-3 mm. Mechanical grouting systems ensure fully packed joints and narrow and full joints result in smooth and decorative surface finish.	Wider grout gaps ( 5 mm or over) is needed, especially when non flowy grout materials are applied. In wide joints the grouts tend to bend down and there is risk for the tile adges from heavy traffic and the final surface finish is never as smooth.





## Nonbonded-Floating Floor Detail





## TEKSER FD and FDE SYSTEM (VIBRATION INSTALLATION)

Applied ceramics are completely chemical resistant, low thermal expansion, low water absorption, easy to clean hygienic tiles. Application is done by vibration system. This application has the highest load capacity and impact resistance in all tile applications.

In this system the screed, adhesive slurry and all flooring elements cure together forming a monolithic structure. There are no separate curing elements. Vibration installation is followed by mechanical epoxy grouting. The joints come out fully compacted without gaps and pinholes at the same level of the tile surfaces without bending.

Thus all floor specifications and standards that is required in food and beverage industry are met.

#### INDUSTRIAL CERAMIC FLOOR COATING IN FOOD AND BEVERAGE INDUSTRY

- Dairies and dairy products
- Meat and meat product factories
- Alcoholic and nonalcoholic drinks, beverage, juice factories
- Factories that produce or process animal fat or vegetable oil
- Frozen and canned food factories

- Ice cream factories
- Biscuit, candy and confectionary factories
- Bakery, patisserie and restaurants
- Industrial kitchens
- And all the food industry where hygiene is a necessity







As a requirement for international standards, places where food are produced, processed and stocked need specific floor qualifications demanding high standards.

### Accordingly a plant might need;

#### CHEMICAL RESISTANCE

Dairy, meat, beverage industry, bakery, ice cream, frozen food and all food facilities have different kind of chemicals effective on floors because of production and cleanup (such as lactic acid, blood, sugar acids, CIP chemicals, etc..) In these plants, floor's resistance to these chemicals is very important.

#### HYGIENE

The most important factor in food and beverage industries is the hygiene. Their floors has to be non absorbent, not allowing dirt or other micro organisms to form, easy to disinfect and washable. There must not be any cracks or scrapes that let the bacteria settle.

#### PHYSICAL DEMANDS

The floor must be anti-slippery, wear resistant, and not easy to crack and must support heavy loads and intense traffic. It is important that you choose the right material thickness, application materials and methods by calculating point, spread and moving loads.

#### THERMAL RESISTANCE

Hot waters, that are used by production processes (bakeries, heating boilers, pasteurization etc.) or used in cleaning cause thermal stresses to the factory floors. The material that will be used for floor coating must have low thermal expansion and must be able to absorb temperature differences. For that, the right material must be applied with right grouts by calculating expansions.

# TEKSER POWERHEX SYSTEM

## INDUSTRIAL FLOORS WITH HEXAGONAL TILES

Everything that is expected from a floor coating...

The floor coating system that makes you say "This is it..." with its specialties such as nonwear, unbreakable, appropriate to every kind of traffic with its special shape and thickness, minimum grout gap, almost seamless look and decorativeness.

#### Advantages of TEKSER POWERHEX that is applied with hexagonal tiles

The most resistant floor coating for mechanic, thermal and chemical loads with its special shape, thickness and non continuing narrow joints. Because of the speciality of hexagonal tiles, slopes steeper than square or rectangular tiles can be given with no lipping problems. The fact that all water and chemicals that has been dropped to the floor can reach drains faster contributes to the hygiene.

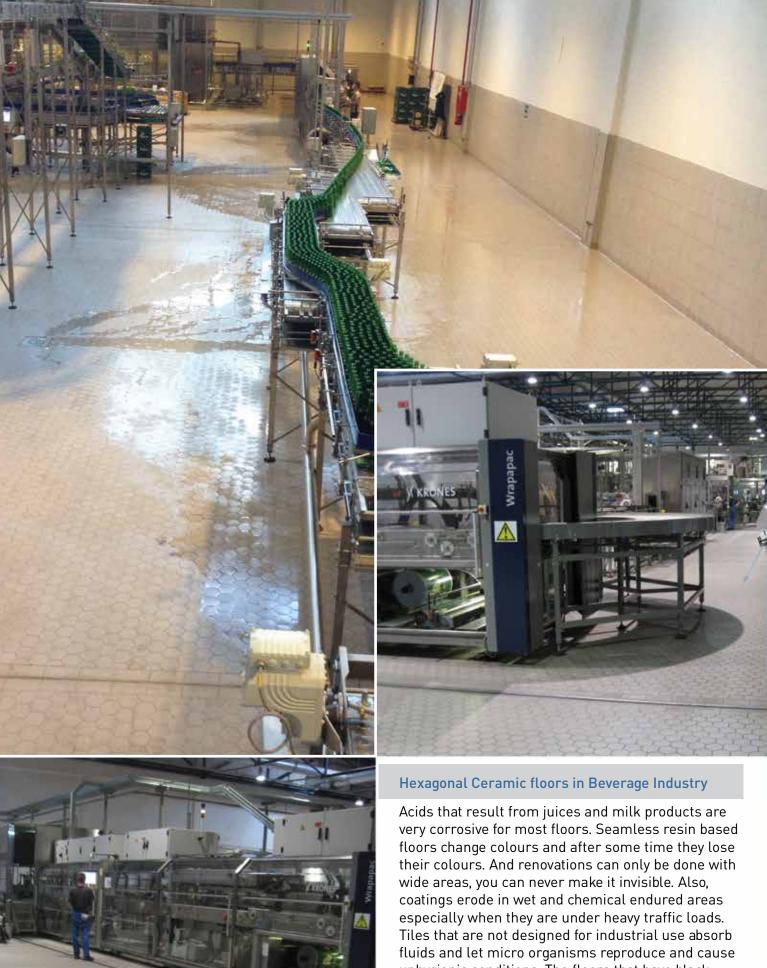
Because the edges of tiles are short and joints are non continuous in hexagonal tiles, even the heavy loads on small wheels can be easily supported. By using vibration tiling system, a smooth surface that has the highest durability to both shear and compression loads can be attained.

Narrow joint spaces (1,5-2 mm) are possible, by this way a homogeneous floor can be gained and by mechanical grouting bending of epoxy in the joints is prevented, resulting in maximum flatness. Because of its small size, the deviation from surface flatness is minimum. This way it allows a better surface flatness than even the large sized tiles.

It supplies all types of anti-slip functions to a ceramic floor. Especially in wet and oily floor conditions, with hexagon tiles it is much more easier to get an anti-slip finish and still have an easy to clean and secure working floor for employees.

In TEKSER POWERHEX system all applications from sloping screed, epoxy adhesive to mechanical epoxy grouting are done in the same day and all materials connect splendidly. Epoxy adhesive under hexagonal tiles and epoxy grout at the joints combine together and envelope the tile from all sides.





unhygienic conditions. The floors that have black stains are typical example of that. It can also be seen on glazed tiles, because glaze only protects the surface.

Only Hexagonal tiles warranty a lifelong trouble free floor for a beverage production plant.



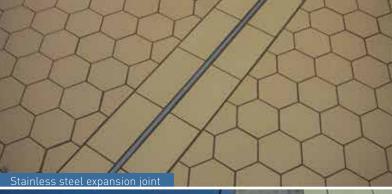
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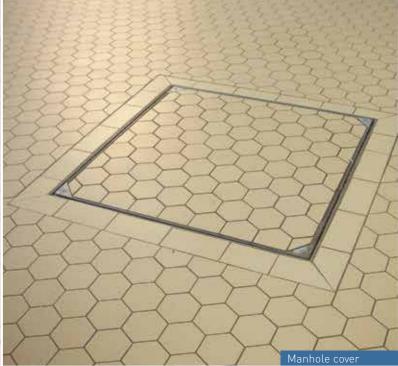
#### Hexagonal Ceramic Floors in Food Industry

The high temperature that results from production lines cause epoxy coated floors to melt and uprise. The floor coating and the concrete under it has different expansion coefficients, because of these scratches occur and it causes hygiene problems. Hexagonal tiles with 15 to 18 mm thickness absorb the heat step by step and prevents thermal shocks that affect the infrastructure. This way it protects the surface from damages by making sure that the concrete underneath stays at the same temperature. Hexagonal tiles look like one smooth floor with its minimum joint spaces which are almost filled fully to the tile surface by mechanical grouting systems.







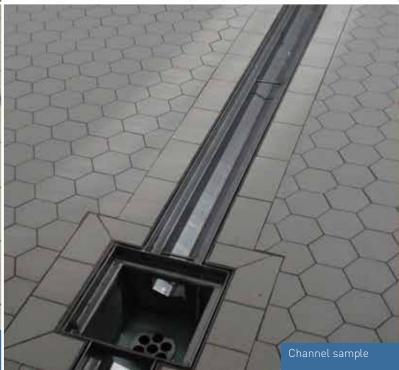


Pipe running through the installation



## SOLUTION DETAILS

Only an experienced professional team can solve the technical details on a floor. Unprofessional solutions decrease life cycle of a floor as well as resulting in decorative mistakes.













#### **TEKSER RN SYSTEM**

TEKSER has been specialized in the renovation of old floors. If your floor was not installed as it has to be, we can renovate it section by section without stopping the operation of your plant or with minimum production loss

# **Markets and Shopping Malls**

Specialist ceramic floor coating applications in Markets and Shopping Malls

Supermarkets, hypermarkets and all shopping malls are practically commercial areas where strength demands of floors are higher than expected.

TEKSER MK system has been designed to meet floor requirements of commercial areas, especially of hypermarkets and hardware stores.

Durability to serve trouble -free, even after years- no corrosions, no breaks or cracks, resistant to heavy load traffic such as transpallets and forklifts

#### Decorative

Flatness characteristics to sustain the comfortable use of floors by the customers Easy cleaning and low maintenance requirements with minimum water absorption capacity, also ensures hygienic requirements where necessary.

Complying with the safety requirements of various floors according to slip resistance classification.

Quick installation during the construction phase to allow faster implementation of equipment afterwards

Floor coatings of continuous serving commercial areas must be problem-free with professionally designed technical details and must be used for years without repair needs.

Floors of food preparation units of markets should especially comply with the strict hygiene standards





TEKSER, thanks to the long-standing experience in the application of market floor coatings, respond to all features listed by offering a wide range of the highest standart industrial ceramic floor solutions.

Quality of TEKSER has been appreciated by international chain companies like CARREFOUR, REAL, METRO, KOÇTAŞ – B&Q, MIGROS.

Our tiles have high chemical resistance and low thermal expansion. They are resistant to abrasion, hygienic and easy to clean. Accordingly, they ensure all the floor specifications and standards required by the markets and food processing units, there in.





# Tekser Tile Range

#### TILES , COLOURS AND TECHNICAL SPECIFICATIONS

#### Porcelain Fully Vitrified



## TEKSER PORCELAIN TILES TECHNICAL CHARACTERISTICS

Water Absorption
Modulus of Rupture
Breaking Strength
Deep Abrasion
Resistance to acids and alcalids

Staining resistance

\*Exception: Hydrofluoric acid (HD) and its compounds

#### Hexagonal ceramic products



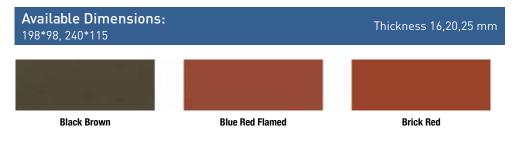
#### HEXAGON TILES

Teknik değerler: DIN EN ISO 10545 Bölüm 1-16'ya göre test edildi.

Modulus of Rupture
Breaking strength for thickness>7,5 mm in N
Resistant to deep abrasion
Water absorption

The above values are an extract from a presented on request.

#### **Clinker Tiles**



Printed tile colors might vary with the original samples. Please ask for a sample for better review.

#### **CLINKER TILES**

Modulus of Rupture	
Compression strength	
Water absorption	
Acid resistance	
Alkali resistance	
Frost resistance	
Resistance against wear by grinding	
Size consistency	
Thermal shock resistance its compounds	

\*Exception: Hydrofluoric acid (HD) and its compounds

EN 14411	TEKSER TILES
<0,5	<0,1
Approx. 35 N/mm <sup>2</sup>	>45 N/mm <sup>2</sup>
Min 1300 N	>5500 N
Max. 175 mm <sup>3</sup>	Max. 147 mm <sup>3</sup>
Test method available	Max 9 x 10 <sup>-6</sup> K <sup>-1</sup>
required	fulfilled*
Test method available	Class 3

Altıgen porselen karolar DIN EN 14411 standardının bütün gerekliliklerini karşılamaktadır. Bölüm G, Grup B I ve UGL.

DIN EN 14411	TEKSER TILES
min 35 N/mm²	Approx. 73,3 ± 4,1
min. 1300 N	Approx. 15289 ± 911
max 175 mm <sup>3</sup>	Approx. 100 mm <sup>3</sup>
max 0.5%	< 0,05%

# >5500 N -Economical Max. 147 mm<sup>3</sup> CLEAN, SAFE AND ELEGANT FLOORS Max 9 x 10<sup>-6</sup> K<sup>-1</sup> CLEAN, SAFE AND ELEGANT FLOORS fulfilled\* TEKSER Industrial Ceramic Applications make high quality, up to standards floor coatings according to customer needs and demands.

#### **Application Fields**

#### Some of the countless application fields are;

- Food and beverage industry
- Chemical and petrochemical industry

**RIGHT TILES FOR EVERY PURPOSE** 

-Resistant to heavy mechanical loads

-Temperature resistant (above 100oC) -Water absorption is less than %0,5

-Safety installation of machinery and production

-Easy cleaning, low maintenance and hygienic floors

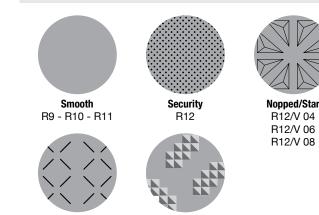
-Chemical resistant

-Easy to repair small areas -Steam jet cleaning possible -Resistant to abrasion

units on Tekser floors -No need for impregnation

- Metal production and processing factories
- Acid pools
- Service, showroom and workshops at automotive industry
- Supermarkets and hypermarkets
- Shopping centers
- Transportation- Terminals, railway depots, main bus stations vs.
- Electrical & electronical industry
- Laboratories
- Cosmetic production plants
- Pharmaceutical plants
- Hospitals and operating rooms
- Research and development centers And others

#### Grades of anti-slip surfaces



**Pyramid Profile** 

R13/V 10

Nopped Profile R12/V 06

Required by EN	TEKSER CLINKER
min. 20 N/mm <sup>2</sup>	38,1 N/mm <sup>2</sup>
min. 150 N/mm <sup>2</sup>	252 N/mm
max. %3	fulfilled
required	fulfilled*
required	fulfilled*
required	fulfilled
max. 10 cm <sup>2</sup>	5,7 cm
± 1,5	fulfilled*
5-8 x 10 <sup>-6</sup> K <sup>-1</sup>	6,7 x 10 <sup>-6</sup> K <sup>-1</sup>
required	fulfilled*



#### **FOOD INDUSTRIES**

HALWANI BROS CO. UNILEVER ALGIDA Ice Cream UNILEVER Edible Oil (CALVE) DR OETKER KASIH FOOD- Canned Foods WAFRA BAKERY (Junior Croissants) ÜLKER GOLF ICECREAM ÜLKER FRESHCAKE- Bakery PELIT CHOCOLATE & BAKERY SABIHA GOKCEN AIRPORT KITCHEN AROMSA FOOD AROMATICS PHILIP MORRIS AL TARIQ FOODS (HELLO KETCHUP) ARIDAN BALPARMAK HONEY CHIPITA 7DAYS Bakery DIVAN PATISSERIES DOGUS CHIPS BTA (TAV) Airport Catering AL SALMAN Bakery TURKISH DOCO (Airline Catering) DINA FOOD CHEETOS	16000 sqm 12150 sqm 1330 sqm 6500 sqm 1200 sqm 7500 sqm 5000 sqm 14000 sqm 2200 sqm 2800 sqm 2800 sqm 2700 sqm 3270 sqm 3500 sqm 9700 sqm 3500 sqm 7000 sqm	Jeddah, Saudi Arabia Konya, Turkey Tekirdag, Turkey Izmir, Turkey Amman, Jordan Jeddah, Saudi Arabia Bursa, Turkey Istanbul, Turkey Istanbul, Turkey Istanbul, Turkey Istanbul, Turkey Istanbul, Turkey Baghdad, Iraq Istanbul, Turkey Kocaeli, Turkey Istanbul, Turkey Istanbul, Turkey Istanbul, Turkey Istanbul, Turkey Istanbul, Turkey Istanbul, Turkey Bouridah, Saudi Arabia Istanbul, Antalya, Bodrum, Trabzon Tehran, Iran
DAIRIES SÜTAŞ DAIRY	70000 sqm	İstanbul, Bursa, Aksaray, Turkey
DANONE PINAR DAIRY ATROPATENA DAIRY MOOVA (SÖKTAŞ) DAIRY JUDI FOOD DAIRY & JUICE MILCO –TARA DAİRY SAB ZAHMET RUZI DAIRY SWANI FOOD DAIRY & JUICE OZLEM DAIRY EKER – ANDROS DAIRY SÜTAŞ BALKAN DAIRY KAANLAR DAIRY GÜNEY DAIRY (CEBECI) ENKA DAIRY SAADEDDIN GROUP (cheese plant) TEKSÜT DAIRY UNILEVER ALGIDA BONJUS DAIRY AL AMAL ICE CREAM FUSTEKA ICE CREAM	2500 sqm 2500 sqm 10000 sqm 6000 sqm 3600 sqm 16000 sqm 4700 sqm 4700 sqm 1750 sqm 6000 sqm 1850 sqm 10000 sqm 5500 sqm 13000 sqm 12000 sqm 3200 sqm 3700 sqm 1000 sqm	Luleburgaz, Turkey Eskisehir, Urfa, İzmir Turkey Baku, Azerbaijan Aydın, Turkey Tripoli, Libya Netivot, Israel Baku, Azerbeijan Tripoli, Libya Nicosia, Cyprus Bursa, Turkey Scopia, Macedonia Malkara, Turkey Isparta, Turkey Isparta, Turkey Konya, Turkey Riyadh, Saudi Arabia Gönen, Turkey Beirut, Lebanon Jeddah, Saudi Arabia Basra, Iraq

#### **BEVERAGE INDUSTRY**

TUBORG CARLSBERG	10000 sqm
COCA COLA KHOSHGOVAR CO.	1500 sqm
COCA COLA ATLAS BOTTLING CO.	11000 sqm
ZMSABMILLER (Zambian Breweries)	7000 sqm
CDM SABMILLER (Mozambique Breweries)	3000 sqm
SABMILLER (Tanzanian Breweries)	520 sqm
SABMILLER (Accra Breweries)	3000 sqm
HEINEKEN Volga Brewery	2500 sqm
HEINEKEN Klinto Brewery	10500 sqm
HEINEKEN Brasco Brewery	2340 sqm
HEINEKEN Asia Pasific Brewery	3120 sqm
LION BREWERY	4500 sqm
DCSL Distillery	7900 sqm
MONTEVINA WINERY	1000 sqm
PEPSI CO	1600 sqm
DOLUCA WINERY	9100 sqm
YILDIZ GRANINI JUICE Plant	6000 sqm
EFES GROUP Brewery	1300 sqm
EFES GROUP Brewery	2700 sqm
IDS BORJOMI	
IDS BORJOMI	2250 sqm
MEAT AND POULTRY	
	0500
PINAR MEAT AND POULTRY	8500 sqm
PINAR FISHERY (CAMLIYEM)	1500 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry	1500 sqm 23000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO.	1500 sqm 23000 sqm 3300 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing	1500 sqm 23000 sqm 3300 sqm 1850 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm
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PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 3000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 3500 sqm 3000 sqm 11500 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 3000 sqm 11500 sqm 12000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 11500 sqm 1200 sqm 22000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry ASTRA Meat and Poultry	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 3000 sqm 11500 sqm 12000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PILİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry ASTRA Meat and Poultry ERPİLİÇ Poultry	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 11500 sqm 1200 sqm 22000 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry ASTRA Meat and Poultry ERPİLİÇ Poultry SINIORA Food	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 11500 sqm 1200 sqm 23000 sqm 1900 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry ASTRA Meat and Poultry ERPİLİÇ Poultry SINIORA Food HALWANI Chicken Processing	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 11500 sqm 1200 sqm 23000 sqm 1900 sqm 4500 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry ASTRA Meat and Poultry ERPİLİÇ Poultry SINIORA Food	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 11500 sqm 1200 sqm 23000 sqm 1900 sqm 4500 sqm 1600 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry ASTRA Meat and Poultry ERPİLİÇ Poultry SINIORA Food HALWANI Chicken Processing	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 11500 sqm 1200 sqm 23000 sqm 1900 sqm 4500 sqm 1600 sqm
PINAR FISHERY (CAMLIYEM) BANVIT Poultry DIJLA Meat FOOD PROD. CO. JAFI Meat Processing ŞEKER PİLİÇ Poultry SAB ZAHMET RUZI Meat Processing ABALIOGLU LEZITA Poultry BEYPİ Poultry HACI ALI Poultry HARKOUS Chicken KARIZMA BEŞLER Meat AL WADI Meat KESKINOGLU Poultry ASTRA Meat and Poultry ERPİLİÇ Poultry SINIORA Food HALWANI Chicken Processing AGROMEY Fish	1500 sqm 23000 sqm 3300 sqm 1850 sqm 12000 sqm 2800 sqm 30000 sqm 12000 sqm 3500 sqm 11500 sqm 1200 sqm 23000 sqm 1900 sqm 4500 sqm 1600 sqm 1500 sqm

#### **MARKETS & SHOPPING CENTERS**

REAL HYPERMARKETS	21 Projects	Russia & Turkey
AUCHAN	1 Project	Moscow, Russia
CARREFOUR SA	60 Projects	Turkey, Russia & Iraq
MIGROS	10 Projects	Turkey
KOÇTAŞ B&Q HARDWARE STORE	28 Projects	Turkey & Iraq
METRO GROSS MARKET	8 Projects	Turkey
GREEN MARKET KHAN SHATYR	1 Project	Astana, Kazakstan
	-	

10000 sqm 1000 sqm

17500 sqm

10000 sqm

1200 sqm 2400 sqm

1200 sqm

#### **AUTOMOTIVE & OTHER INDUSTRIES**

BORUSAN STEEL FACTORY
BMW SERVICE
VOLKSWAGEN GROUP DOĞUŞ OTO
VOLKSWAGEN Logistic Center
GÜRALLAR GLASS INDUSTRY - LAV
MERCEDES-BENZ MENGERLER
SAAB SERVICE SHOWROOM

Mashhad, Iran Oujda, Morocco Ndola&Lusaka, Zambia Maputo, Mozambique ,Tanzania .Ghana Nijninovgrod, Russia A.Ababa, Ethiopia Brazzaville, Congo Yangon, Myanmar Colombo, Sri Lanka Colombo, Sri Lanka Sacramento, USA Tekirdag, Turkey Tekirdag, Turkey Sakarya, Turkey Tblisi, Georgia Moscow, Russia Borjomi, Georgia Izmir, Turkey Izmir. Turkev Bandırma, Turkey Amman, Jordan Amman, Jordan Bandırma, Turkey Baku, Azerbaijan Turgutlu, Turkey Bolu, Turkey Nicosia, Cyprus Beirut, Lebanon Istanbul, Turkey Amman, Jordan Manisa, Turkey Tabuk, Saudi Árabia Bolu, Turkey Amman, Jordan Cairo, Egypt Izmir, Turkey Sanlıurfa. Turkev Nicosia, Cyprus

Turkey

Turkey Turkey

Turkey

Turkey

Turkey

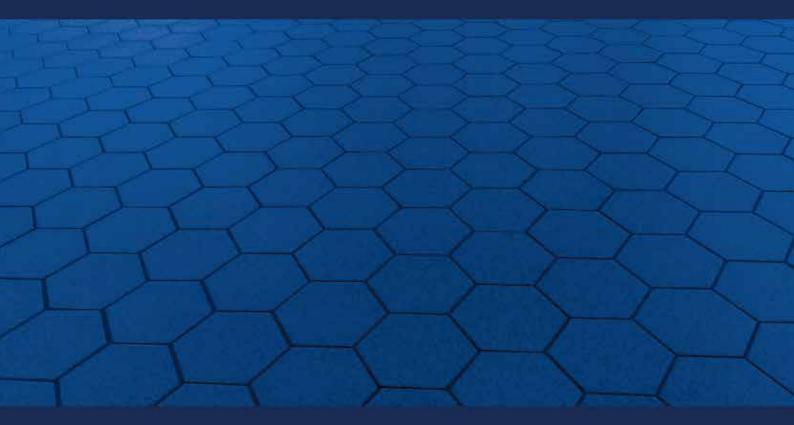
Moscow, Russia

Izmir, Turkey

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# NOTES





TECHNICAL CERAMIC INDUSTRIAL CERAMIC INSTALLATIONS