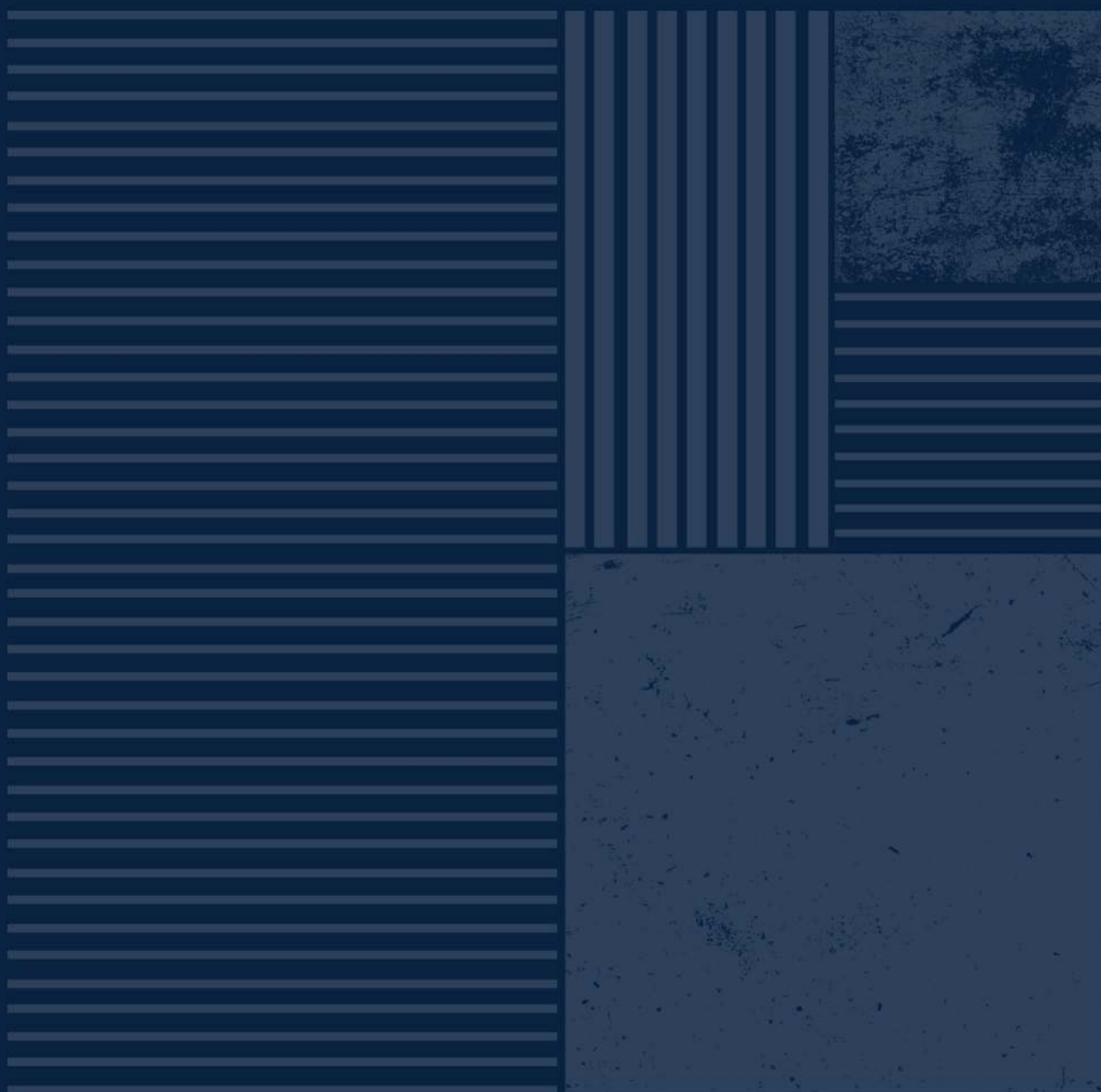


20MM
STONE
TILES



THE **STONE** COLLECTION

QUA
GRANITE

ALFABETİK DİZİN

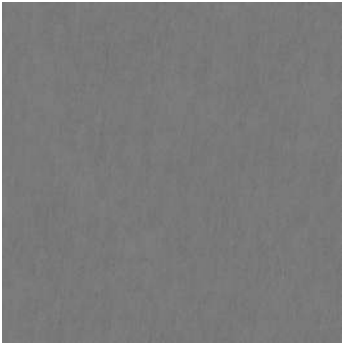
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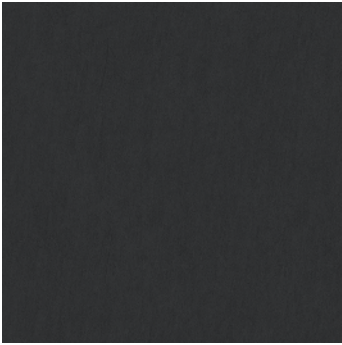


ARDEZYA

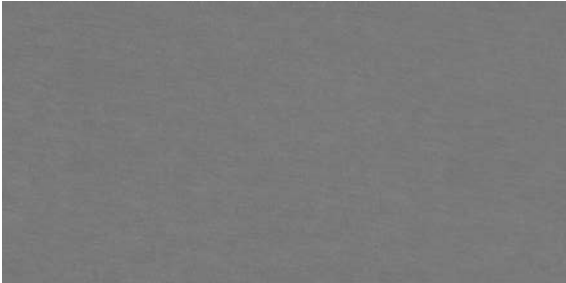
60x60x2 / 23,6x23,6x0,79"
45x90x2 / 17,7x35,4x0,79"



GREY
60x60x2 / 23,6x23,6x0,79"



BLACK
60x60x2 / 23,6x23,6x0,79"



GREY
45x90x2 / 17,7x35,4x0,79"

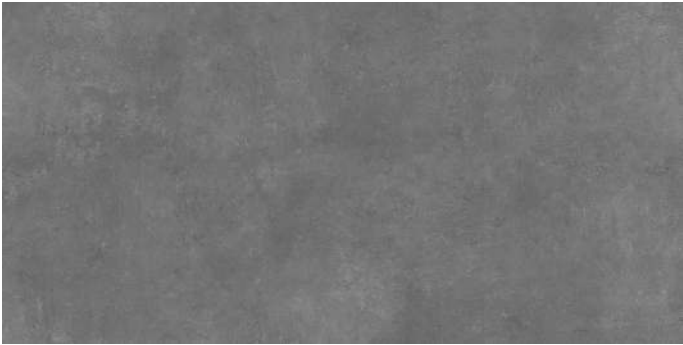


BLACK
45x90x2 / 17,7x35,4x0,79"



ARK

60x120x2 / 23,6x47,2x0,79"
30x120x2 / 11,8x47,2x0,79"



ANTHRACITE
60x120x2 / 23,6x47,2x0,79"



IVORY
60x120x2 / 23,6x47,2x0,79"



SILVER
60x120x2 / 23,6x47,2x0,79"



BLACK
60x120x2 / 23,6x47,2x0,79"



ANTHRACITE
30x120x2 / 11,8x47,2x0,79"



IVORY
30x120x2 / 11,8x47,2x0,79"



SILVER
30x120x2 / 11,8x47,2x0,79"

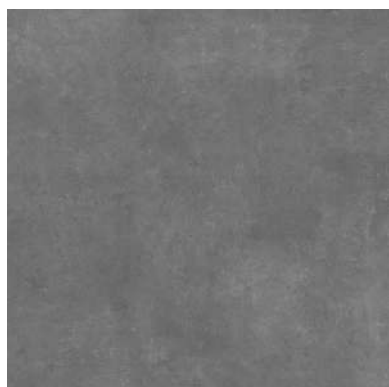


BLACK
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ARK

80x80x2 / 31,4x31,4x0,79"
60x60x2 / 23,6x23,6x0,79"



ANTHRACITE
80x80x2 / 31,4x31,4x0,79"



IVORY
80x80x2 / 31,4x31,4x0,79"



SILVER
80x80x2 / 31,4x31,4x0,79"



BLACK
80x80x2 / 31,4x31,4x0,79"



ANTHRACITE
60x60x2 / 23,6x23,6x0,79"



IVORY
60x60x2 / 23,6x23,6x0,79"



SILVER
60x60x2 / 23,6x23,6x0,79"



BLACK
60x60x2 / 23,6x23,6x0,79"



FIORE DECOR
60x60x2 / 23,6x23,6x0,79"



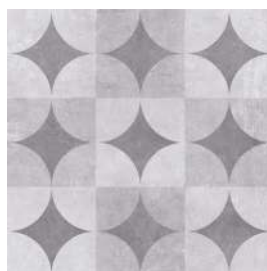
PIAZZA DECOR
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TRIANGOLO DECOR
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CONICAL DECOR
60x60x2 / 23,6x23,6x0,79"



CERCHIO DECOR
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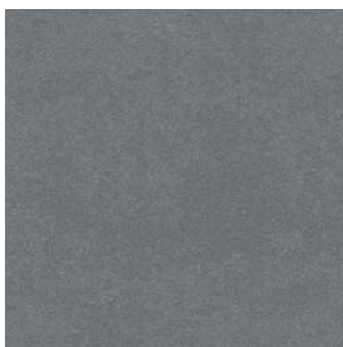
BAZALT

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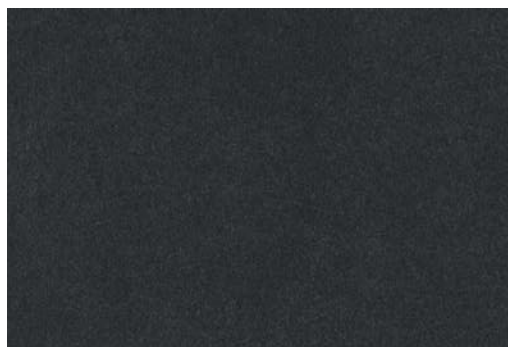
BAZALT



BLACK
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GREY
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BLACK
60x90x2 / 23,6x35,4x0,79"



GREY
60x90x2 / 23,6x35,4x0,79"



BENELUX

80x80x2 / 31,4x31,4x0,79"

60x60x2 / 23,6x23,6x0,79"

60x90x2 / 23,6x35,4x0,79"



BLACK
80x80x2 / 31,4x31,4x0,79"



BLACK
80x80x2 / 31,4x31,4x0,79"



GREY
60x60x2 / 23,6x23,6x0,79"



BLACK
60x60x2 / 23,6x23,6x0,79"



BLACK
60x90x2 / 23,6x35,4x0,79"



GREY
60x90x2 / 23,6x35,4x0,79"



CIPOLLINO

80x80x2 / 31,4x31,4x0,79"



GRIGIO
80x80x2 / 31,4x31,4x0,79"



CLIFF

60x90x2 / 23,6x35,4x0,79"



CLIFF
60x90x2 / 23,6x35,4x0,79"



DAKOTA

60x60x2 / 23,6x23,6x0,79"
60x90x2 / 23,6x35,4x0,79"



BEIGE
60x60x2 / 23,6x23,6x0,79"



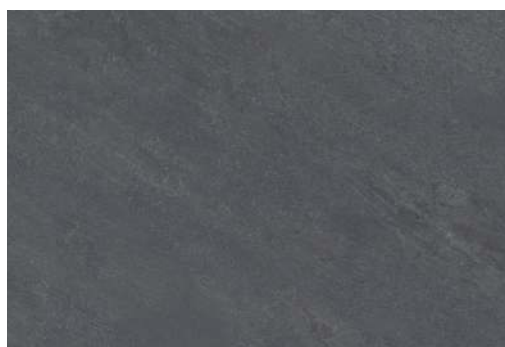
DARK GREY
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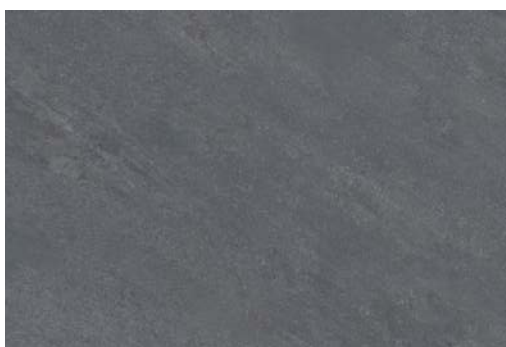
GREY
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BEIGE
60x90x2 / 23,6x35,4x0,79"



DARK GREY
60x90x2 / 23,6x35,4x0,79"



GREY
60x90x2 / 23,6x35,4x0,79"



FOREST

60x60x2 / 23,6x23,6x0,79"
30x120x2 / 11,8x47,2x0,79"



BROWN
60x60x2 / 23,6x23,6x0,79"



CHERRY
30x120x2 / 11,8x47,2x0,79"



NATURAL
30x120x2 / 11,8x47,2x0,79"



SILVER
30x120x2 / 11,8x47,2x0,79"



GRAVA

60x120x2 / 23,6x47,2x0,79"
60x60x2 / 23,6x23,6x0,79"



ANTRACITA
60x120x2 / 23,6x47,2x0,79"



GRIS
60x120x2 / 23,6x47,2x0,79"



ANTRACITA
60x60x2 / 23,6x23,6x0,79"

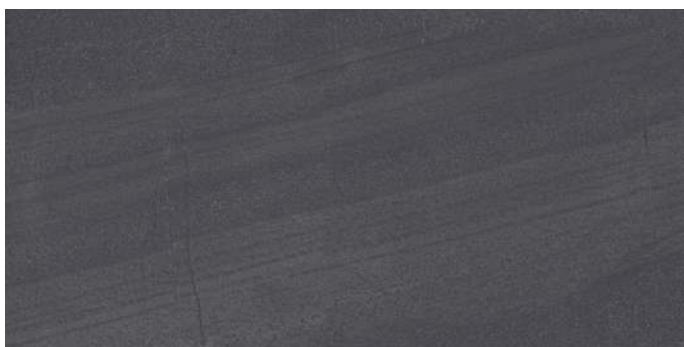


GRIS
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GROVAK

60x120x2 / 23,6x47,2x0,79"
60x90x2 / 23,6x35,4x0,79"



ANTHRACITE
60x120x2 / 23,6x47,2x0,79"

WHITE
60x120x2 / 23,6x47,2x0,79"



ANTHRACITE
60x90x2 / 23,6x35,4x0,79"

WHITE
60x90x2 / 23,6x35,4x0,79"



LAGOM

60x120x2 / 23,6x47,2x0,79"



ANTHRACITE
60x120x2 / 23,6x47,2x0,79"



SAND
60x120x2 / 23,6x47,2x0,79"

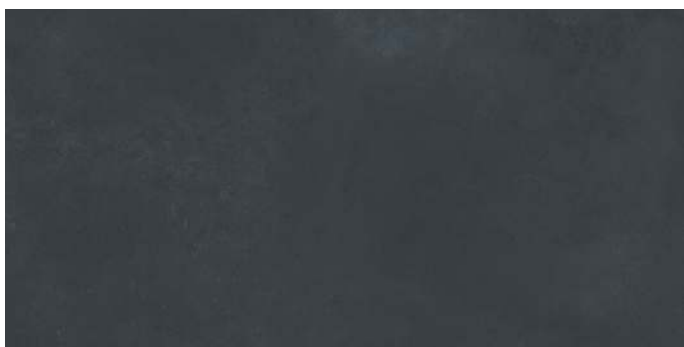


GRA
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LUNA

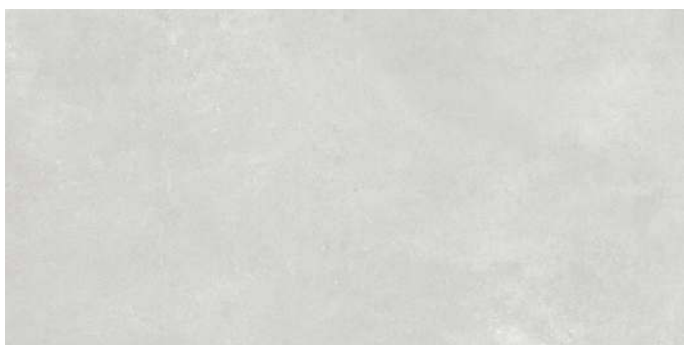
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30x120x2 / 11,8x47,2x0,79"



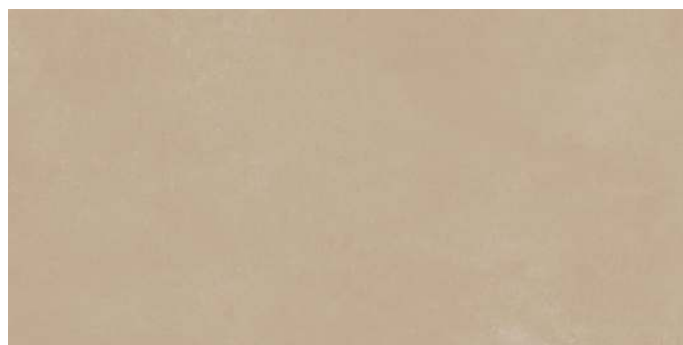
ASH
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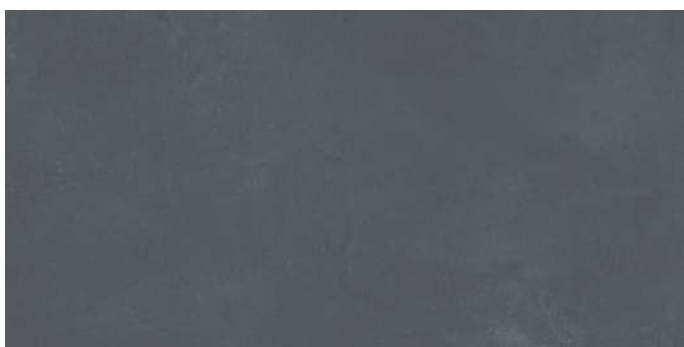
COOL GREY
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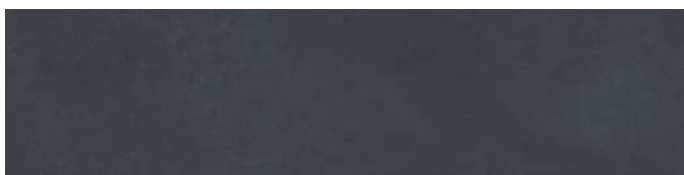
OFFWHITE
60x120x2 / 23,6x47,2x0,79"



SAND
60x120x2 / 23,6x47,2x0,79"



MID GREY
60x120x2 / 23,6x47,2x0,79"



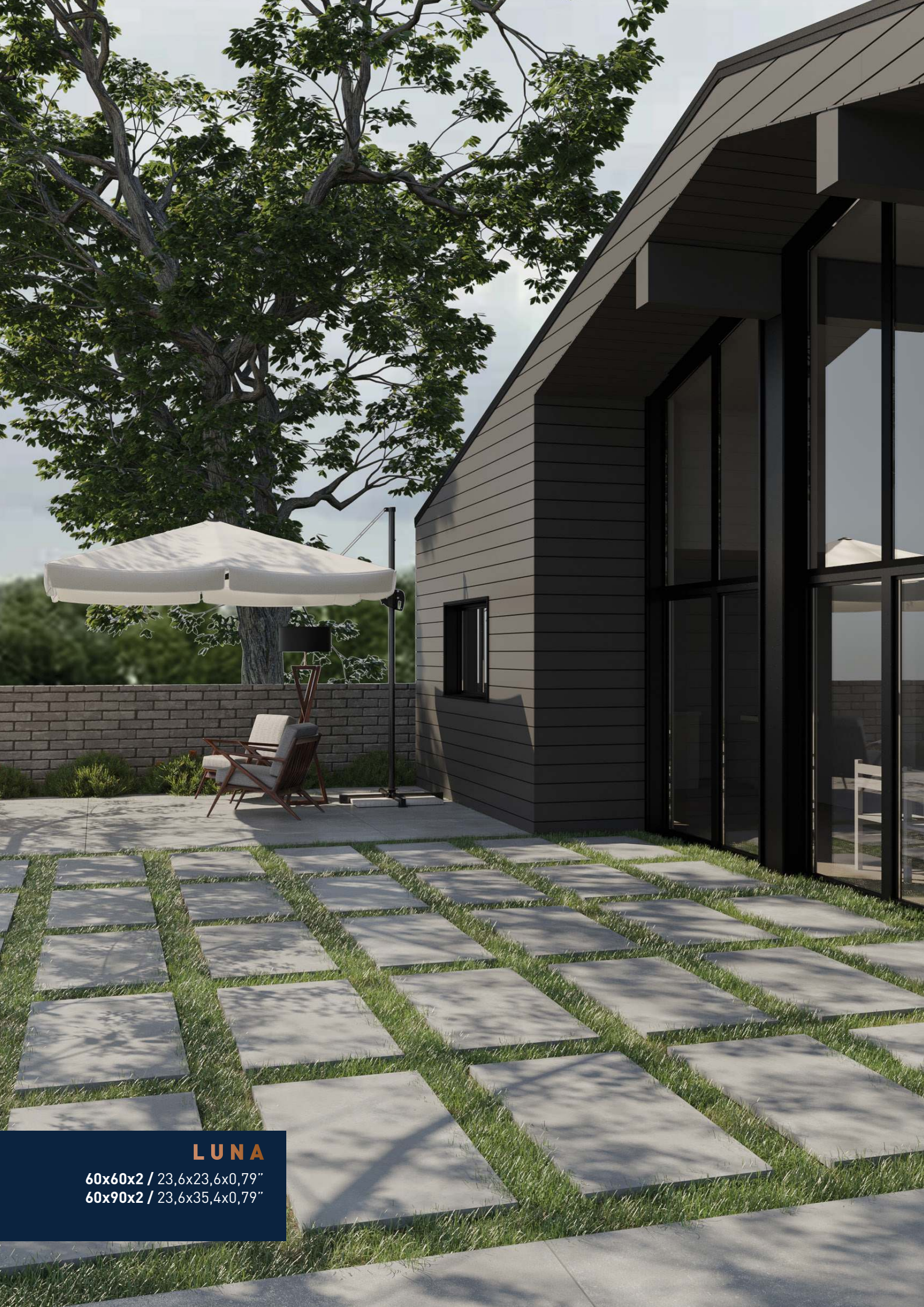
ASH
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COOL GREY
30x120x2 / 11,8x47,2x0,79"

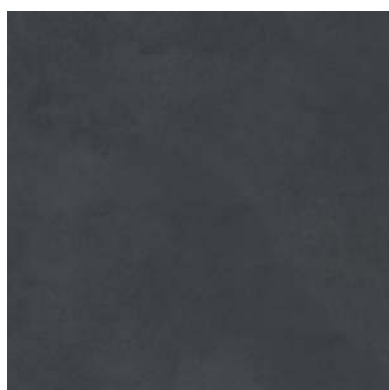


SAND
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LUNA

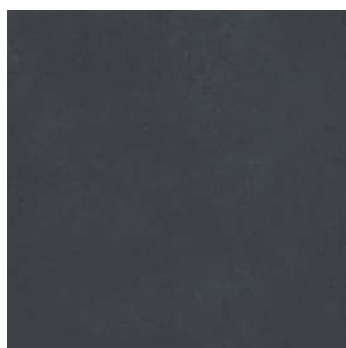
60x60x2 / 23,6x23,6x0,79"
60x90x2 / 23,6x35,4x0,79"



ASH
80x80x2 / 31,4x31,4x0,79"



COOL GREY
80x80x2 / 31,4x31,4x0,79"



ASH
60x60x2 / 23,6x23,6x0,79"



COOL GREY
60x60x2 / 23,6x23,6x0,79"



COPPER
60x60x2 / 23,6x23,6x0,79"



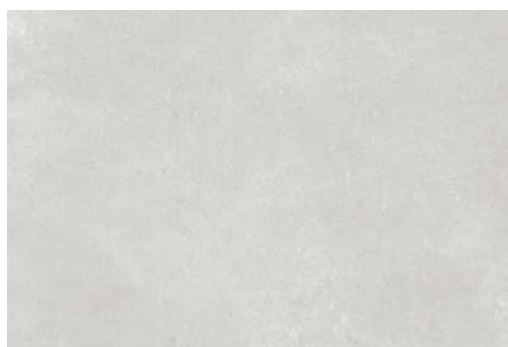
MID GREY
60x60x2 / 23,6x23,6x0,79"



OFFWHITE
60x60x2 / 23,6x23,6x0,79"



SAND
60x60x2 / 23,6x23,6x0,79"



OFFWHITE
60x90x2 / 23,6x35,4x0,79"



COOL GREY
60x90x2 / 23,6x35,4x0,79"



MAVİ BLUE

60x60x2 / 23,6x23,6x0,79"

80x80x2 / 31,4x31,4x0,79"

60x90x2 / 23,6x35,4x0,79"

MAVI BLUE



MAVI BLUE
60x60x2 / 23,6x23,6x0,79"



MAVI BLUE
80x80x2 / 31,4x31,4x0,79"



MAVI BLUE
60x90x2 / 23,6x35,4x0,79"



NORDSTONE ICE

60x90x2 / 23,6x35,4x0,79"

35



PORFIDO

60x60x2 / 23,6x23,6x0,79"

PORFIDO



GREY
60x60x2 / 23,6x23,6x0,79"



RASA

60x120x2 / 23,6x47,2x0,79"



BEIGE
60x120x2 / 23,6x47,2x0,79"



GRIGIO
60x120x2 / 23,6x47,2x0,79"



NERO
60x120x2 / 23,6x47,2x0,79"



RASA

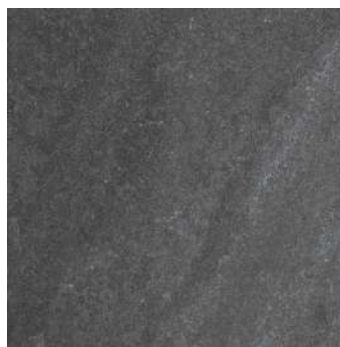
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60x90x2 / 23,6x35,4x0,79"



BEIGE
60x60x2 / 23,6x23,6x0,79"



GRIGIO
60x60x2 / 23,6x23,6x0,79"



NERO
60x60x2 / 23,6x23,6x0,79"



BEIGE
60x90x2 / 23,6x35,4x0,79"



GRIGIO
60x90x2 / 23,6x35,4x0,79"



NERO
60x90x2 / 23,6x35,4x0,79"



RETRO STONE

60x90x2 / 23,6x35,4x0,79"

RETRO STONE



RETRO STONE

60x90x2 / 23,6x35,4x0,79"



STARK

60x120x2 / 23,6x47,2x0,79"



GRAPHITE
60x120x2 / 23,6x47,2x0,79"



GREY
60x120x2 / 23,6x47,2x0,79"



SMOKE
60x120x2 / 23,6x47,2x0,79"



TAUPE
60x120x2 / 23,6x47,2x0,79"



STARK

60x60x2 / 23,6x23,6x0,79"

80x80x2 / 31,4x31,4x0,79"

60x90x2 / 23,6x35,4x0,79"



GRAPHITE
80x80x2 / 31,4x31,4x0,79"



GREY
80x80x2 / 31,4x31,4x0,79"



SMOKE
80x80x2 / 31,4x31,4x0,79"



GRAPHITE
60x60x2 / 23,6x23,6x0,79"



GREY
60x60x2 / 23,6x23,6x0,79"



SMOKE
60x60x2 / 23,6x23,6x0,79"



TAUPE
60x60x2 / 23,6x23,6x0,79"



GRAPHITE
60x90x2 / 23,6x35,4x0,79"



GREY
60x90x2 / 23,6x35,4x0,79"



SMOKE
60x90x2 / 23,6x35,4x0,79"



TAUPE
60x90x2 / 23,6x35,4x0,79"

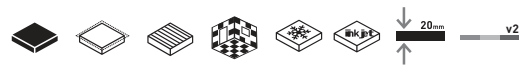


STREET

60x60x2 / 23,6x23,6x0,79"

80x80x2 / 31,4x31,4x0,79"

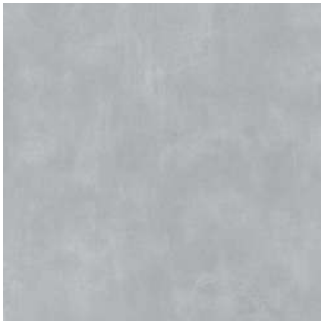
60x90x2 / 23,6x35,4x0,79"



GRAPHITE
80x80x2 / 31,4x31,4x0,79"



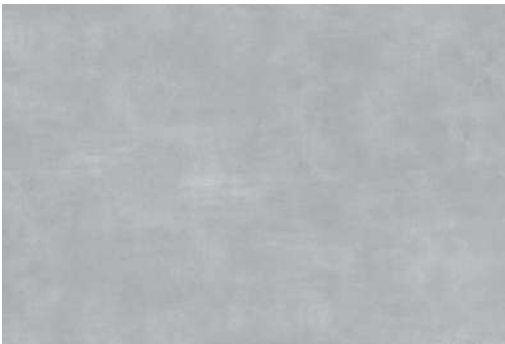
GRAPHITE
60x60x2 / 23,6x23,6x0,79"



GREY
60x60x2 / 23,6x23,6x0,79"



GRAPHITE
60x90x2 / 23,6x35,4x0,79"



GREY
60x90x2 / 23,6x35,4x0,79"



SAND
60x90x2 / 23,6x35,4x0,79"



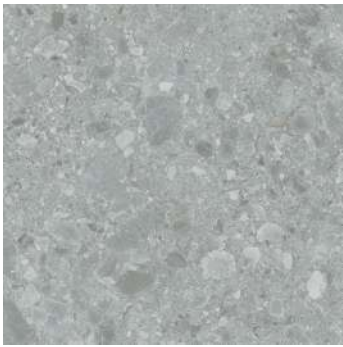
TERRAZZO

60x60x2 / 23,6x23,6x0,79"

TERRAZZO



CREAM
60x60x2 / 23,6x23,6x0,79"



GRIGIO
60x60x2 / 23,6x23,6x0,79"



LIGHT
60x60x2 / 23,6x23,6x0,79"



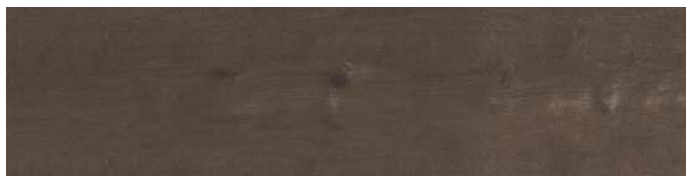
TIBERWOOD

30x120x2 / 11,8x47,2x0,79"

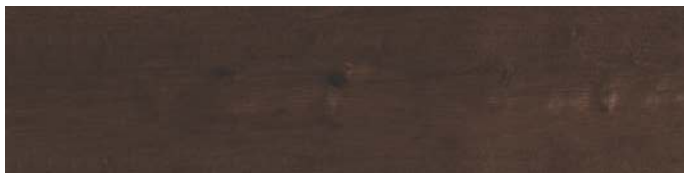
TIBERWOOD



ASH
30x120x2 / 11,8x47,2x0,79"



AVANA
30x120x2 / 11,8x47,2x0,79"



CHERRY
30x120x2 / 11,8x47,2x0,79"



GRIGIO
30x120x2 / 11,8x47,2x0,79"



NATURAL
30x120x2 / 11,8x47,2x0,79"



TRAVERTINE

60x60x2 / 23,6x23,6x0,79"

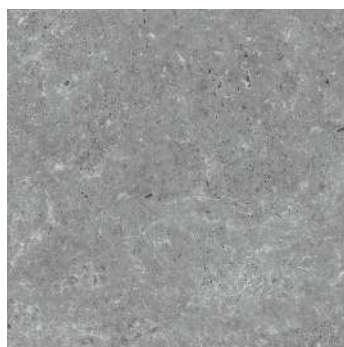
45x90x2 / 17,7x35,4x0,79"

60x90x2 / 23,6x35,4x0,79"

TRAVERTINE



BEIGE
60x60x2 / 23,6x23,6x0,79"



DARK
60x60x2 / 23,6x23,6x0,79"



SILVER
60x60x2 / 23,6x23,6x0,79"



BEIGE
45x90x2 / 17,7x35,4x0,79"



DARK
45x90x2 / 17,7x35,4x0,79"



BEIGE
60x90x2 / 23,6x35,4x0,79"



DARK
60x90x2 / 23,6x35,4x0,79"



SILVER
60x90x2 / 23,6x35,4x0,79"



VITORIA

60x120x2 / 23,6x47,2x0,79"

45x90x2 / 17,7x35,4x0,79"

60x90x2 / 23,6x35,4x0,79"



GREY
60x120x2 / 23,6x47,2x0,79"



SAND
60x120x2 / 23,6x47,2x0,79"



ANTHRACITE
45x90x2 / 17,7x35,4x0,79"



GREY
45x90x2 / 17,7x35,4x0,79"



ANTHRACITE
60x90x2 / 23,6x35,4x0,79"



GREY
60x90x2 / 23,6x35,4x0,79"

PAKETLEME VE TEKNİK DETAYLAR

PACKAGING AND TECHNICAL DETAILS

KARO / TILE

EBAT SIZE	KULLANIM ALANLARI AREAS OF USE	YÜZEY ÖZELLİĞİ SURFACE	AĞIRLIK WEIGHT kg	KALINLIK THICKNESS mm
60x60cm (2 cm) 23,6x23,6"	YER, FLOOR	MATT	16,1	20
60x120cm (2 cm) 23,6x47,2"	YER, FLOOR	MATT	32,5	20
30x120cm (2 cm) 11,8x47,2"	YER, FLOOR	MATT	16,2	20
45x90cm (2 cm) 17,7x35,4"	YER, FLOOR	MATT	18	20
60x90cm (2 cm) 23,6x35,4"	YER, FLOOR	MATT	24	20

KUTU / BOX

ADET (ad/kutu) PIECES (pcs/box)	AĞIRLIK (kg/kutu) WEIGHT (kg/box)	MİKTAR (m²/kutu) QUANTITY (sqm/box)
2	32,2	0,72
2	65,00	1,44
2	32,50	0,72
2	36	0,81
2	48	1,08

PALET / PALLET

EBAT SIZE	KUTU BOXES (boxes/plt)	BRÜT AĞIRLIK GROSS WEIGHT (kg/plt)	MİKTAR (m²/pal) QUANTITY (sqm/plt)
80x121 cm 31,4x47,6"	32	1050	23,04
74x121 cm 29,1x47,6"	16	1070	23,04
74x121 cm 29,1x47,6"	32	1055	23,04
98x122 cm 38,5x48"	26	992	26
91x90 cm 35,8x35,4"	20	975	21,60

KULLANIM KILAVUZU

Aşağıdaki bilgiler karoların kullanımında en fazla verimi almak ve uzun süreli kullanım sağlamak adına yol gösterici olması amacıyla hazırlanmıştır.

KARO SEÇİMİ

• Seramik malzemelerin kullanım koşullarına uygun ve uzun ömürlü olması adına seçimlerinin özenle yapılması gerekmektedir. Kullanım alanına göre aşağıdaki sınıflandırma dikkate alınarak seçim yapılmalıdır.

1. Duvar Karosu: İç mekan duvar
2. Yer Karosu: İç mekan yer ve duvar
3. Porselen Karo: İç mekan yer ve duvar, dış mekan yer ve duvar ve cephe
4. Teknik Porselen Karo: İç mekan yer ve duvar, dış mekan yer ve duvar ve cephe

• Ürünlerin kullanım alanlarının özellikleri ile uyumlu olması verimliliği arttırmaktadır. Bu nedenle yaya trafiğinin ya da aşınmanın yüksek olduğu alanlarda trafik yoğunluğuna uygun ürünlerin tercih edilmesi faydalı olacaktır. İlgili trafik yoğunluğu bilgileri ürünlerin yanında yer almaktadır.

UYGULAMADA DİKKAT EDİLMESİ GEREKEN KONULAR

- Ürünler uygulanırken uygulama talimatlarına dikkat edilmelidir. Karolar uygulanmadan önce ton ve kalibre kontrolleri yapılmalı, aynı alana uygulanacak ürünlerin aynı tonda ve kalibrede olmasına özen gösterilmelidir. Desen takibi yapan ürünler aynı yönde döşenmelidir. İlgili talimatlar kutular üzerinde yer almaktadır.
- Karolar şaşırtmacalı uygulamalar yapılarak da uygulanmaktadır. Özellikle dikdörtgen formdaki ahşap görünümlü ürünlerde sıklıkla şaşırtmaca yöntemi kullanılmaktadır. Karo üretiminde çok yüksek ısılar kullanılması nedeniyle TSE standartlarında deformasyonlar ile karşılaşılabilir. Bu nedenle büyük ebatlı ürünlerde kama (takoz) uygulaması ile uygulanması son derece faydalı olacaktır. Bu yöntem zemin ve işçilik kaynaklı hataları ortadan kaldıracak, ürünlerin üretimi sırasında oluşan kabul edilebilir deformasyonları da en az seviyeye indirecektir.
- Karolar belli bir derz aralığı bırakılarak uygulanmalıdır. İlgili derz aralıkları; Rektifiye edilmiş karolarda minimum 1 mm en iyi sonuç için 2 mm, rektifiye edilmemiş karolarda minimum 2 mm en iyi sonuç için 3 mm olacak şekilde verilmelidir.

KULLANIM KOŞULLARI

• Yaşam alanlarını kaplayan seramik karolar dekor ve bordür grupları ile daha hareketli ve zengin görünüme kavuşmaktadır. Bu nedenle bordür ve dekor ürünlerin dekoratif amacı daha ön plandadır. Bu ürünlerin yüzey dayanıklılıkları ve aşınma değerleri diğer ürünler kadar yüksek olmayabilir. Dekor ve bordür ürünlerde altın, platin, bakır gibi metalik renkler kullanılmaktadır. Bu tip metalik renkler yoğun asit içerikli temizlik maddeleri ile aşınmakta ve zaman içerisinde zarar görmektedir. Bu nedenle bordür ve dekor ürünlerinin asitli temizlik maddeleri ile temizlenmemesi, sabunlu ya da nemli bir bez ile temizlenmesi gerekmektedir. İlgili bilgileri kataloğumuzda ürün çevresinde görebilirsiniz.

USER'S MANUAL

The information provided below has been prepared in order to guide the user for achieving maximum efficiency in usage of the tiles and ensuring usage for a long time.

SELECTION OF THE TILES

• Selection of ceramic materials has to be done with care in order that they are suitable for the usage conditions and they have a long life. Selection has to be made by taking into account the classification provided below based on the area of usage.

1. Wall Tiles: For indoor walls
2. Floor Tiles: For indoor floors and walls
3. Porcelain Tiles: For indoor floors and walls, outdoor floors, walls and facades
4. Technical Porcelain Tiles: For indoor floors and walls, outdoor floors, walls and facades

• Suitability of the products with the specifications of usage areas increases efficiency. As such, it would be beneficial to select products which are suitable for traffic intensity in areas where pedestrian traffic intensity is high. Information as to relevant traffic intensity is provided with the products.

ISSUES TO BE CONSIDERED IN APPLICATION

- Instructions must be followed carefully while applying the tiles. Tone and calibration controls of the tiles must be made before the application and care should be taken to ensure that products to be applied to an area are in the same tone and calibration. Products, with patterns following each other, must be laid in the same direction. The relevant instructions are provided on the boxes.
- Tiles are also applied in twisted layout applications. Twisting method is frequently used especially in rectangular form wood-like products. There may be deformations according to TSI standards due to usage of very high temperature during production of tiles. As such, wedge application it is very useful while applying big size products. This method will eliminate the defects arising from floor and labor and minimize considerable deformation levels which can occur during the production.
- The tiles should be applied with a certain joint space. Relevant joint spaces should be as follows: minimum in 1 mm in rectified tiles and 2 mm for best results and minimum 2 mm in unrectified tiles and 3 mm for best results.

USAGE CONDITIONS

• Ceramic tiles which cover living areas are getting more active and richer appearance with décor and border groups. As such, decorative purpose of décor and border products stands out more. The surface resistances and abrasion resistances of these products are not high compared to other products. Décor and border products contain metallic colors such as gold, platinum and copper. These products with metallic colors are abraded because of cleaning products which contains acid and they may get damaged by time. As such, décor and border products should not be cleaned with acid cleaning agents and must be cleaned with soap or with a damp cloth. You can see relevant information in our catalog near the product.

SERTİFİKALAR

CERTIFICATIONS

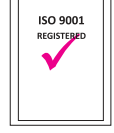
ISO 14001

ÇEVRE YÖNETİM SİSTEMİ
ENVIRONMENTAL MANAGEMENT SYSTEM



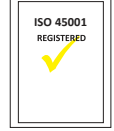
ISO 9001

KALİTE YÖNETİM SİSTEMİ
CERTIFICATE OF QUALITY MANAGEMENT SYSTEM



ISO 45001

İŞ SAĞLIĞI VE GÜVENLİĞİ YÖNETİM SİSTEMİ
OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM



ISO 50001

ENERJİ YÖNETİM SİSTEMİ
ENERGY MANAGEMENT SYSTEM



UL GREENGUARD GOLD

GREENGUARD İÇ MEKAN SAĞLIKLI KULLANIMA UYGUNLUK SERTİFİKASI
GREENGUARD CERTIFICATE OF SUITABILITY FOR INDOOR HEALTHY USE



TSE

TÜRK STANDARTLARINA UYGUNLUK BELGESİ
TURKISH STANDARD FOR CERAMIC TILES



TSE ÇİFT YILDIZ

ÇİFT YILDIZ KRİTERİNE UYGUNLUK BELGESİ
TSI CERTIFICATE OF CONFORMITY TO DOUBLE STAR CRITERIA



CE

CE UYGUNLUK BEYANI
DECLARATION OF PERFORMANCE



CSTB

CSTB QB UYGUNLUK SERTİFİKASI
CSTB QB CERTIFICATE OF CONFORMITY



DÖŞEMEDEN ÖNCE:

BEFORE LAYING ON THE TILES:

SERAMİK KAROLARI SİPARİŞ EDERKEN KULLANIM ALANLARINI BELİRTİNİZ.

WHEN ORDERING CERAMIC TILES SPECIFY THE AREAS OF USE.

SERAMİK KAROLARI DÖŞEMEDEN ÖNCE LÜTFEN TON NUMARALARININ AYNI MEKANLAR İÇİN AYNI OLMASINA DİKKAT EDİNİZ; DÖŞENDİKTEN SONRA SORUMLULUK KABUL EDİLMEMEKTEDİR.

BEFORE TILE SETTING, VERIFY THE TONALITY NUMBERS, AFTER TILE SETTING. CLAIMS REGARDING THESE INDICATIONS CANNOT BE ACCEPTED.

QUA GRANİTE'NİN ÜRÜNLER VE TEKNİK DETAYLARINDA DEĞİŞİKLİK YAPMA HAKKI SAKLIDIR.

THE RIGHT TO CHANGE THE PRODUCTS AND TECHNICAL SPECIFICATIONS IS RESERVED BY QUA GRANITE.

SEMBOLLER

SYMBOLS

			
V3 V3	MAT MATT	STANDART BODY	DONA DAYANIM FROST RESISTANCE
			
V2 V2	PARLAK GLOSSY	REKTİFİYE RECTIFIED	YER & DUVAR WALL & FLOOR
			
	YARI PARLAK HALF GLOSSY	inkjet INKJET	YER FLOOR
			
			DUVAR WALL
			
			20 mm KALINLIK 20 mm THICKNESS

PORSELEN KARO YÜZEYİ KAYMA DİRENCİ VE UYGUN KULLANIM ALANLARI

DIN 51130, DIN 51097 YE UYGUN ANTI-SLIP ÖZELLİKLERİ

HALİ HAZIRDA KAYMA DİRENCİNİ TALEP EDEN BİR AVRUPA NORMU YOKTUR. ANCAK GÜNLÜK KULLANIMDA KAYMA DİRENCİ ÇOK ÖNEMLİ OLDUĞU DURUMLARDA MEVCUT OLAN ALMAN STANDARTLARINI KULLANARAK SINIFLANDIRMA YAPILMAKTADIR. KARONUN KAYMA DİRENCİ, BAKIMINDAN VE ZAMAN İÇERİSİNDE OLABİLECEK AŞINMADAN ETKİLENİR.

BU İKİ STANDARTTAN,

- DIN 51130 İNSANLARIN AYAKKABILARIYLA (R9-R13) VE
- DIN 51097 ÇIPLAK AYAKLARLA (A, B, C)

YÜRÜNÜLEN ALANLARDA ZEMİN YÜZEYLERİNİN KAYGANLIKLARINI BİRBİRİNDEN AYIRIR. R SEVİYESİ KAYMA AÇISINI GÖSTERİR.

DIN 51130'DA BELİRTİLEN ÖLÇÜM METODUNDA R KAYGANLIK SINIFLARININ FARKI VE KULLANIM ALANLARINA UYGUN SINIFLANDIRILMASI AŞAĞIDAKİ ŞEKİLEDİR:

R 9 (6° - 10°)	DIŞARIDAN ERİŞİLEN GİRİŞ VE MERDİVENLER, RESTORAN, MAĞAZALAR, KLİNİKLER, HASTANELER, OKULLAR V.B.
R 10 (10° - 19°)	TUVALETLERİ VE ORTAK PAYLAŞILAN TUVALETLER VE DUŞLAR, RESTORANLAR VE KAFELERDEKİ KÜÇÜK MUTFAKLAR, GARAJLAR VE BODRUMLAR V.B.
R 11 (19° - 27°)	GIDA ÜRETİM TESİSLERİ, RESTORANLAR VE KAFELERDEKİ ORTA BOY MUTFAKLAR, ÇOK MİKTARDA SU VE ÇAMUR BULUNAN ÇALIŞMA ORTAMLARI, LABORATUVARLAR, ÇAMAŞIRHANELER, HANGARLAR V.B.
R 12 (27° - 35°)	SÜT ÜRÜNLERİ, GIDA YAĞLARI, KURUTULMUŞ ETLER GİBİ YAĞLAR AÇISINDAN ZENGİN GIDALAR İÇİN ÜRETİM TESİSLERİ, RESTORANLAR VE KAFELERDEKİ BÜYÜK MUTFAKLAR, KAYGANLAŞTIRICI MADDELERİNİN KULLANILDIĞI ENDÜSTRİYEL ALANLAR.
R 13 (> 35°)	BÜYÜK MİKTARLARDA YAĞLARIN KULLANILDIĞI YERLER; GIDA İŞLEME ALANLARI.

DIN 51097'DE BELİRTİLEN ÖLÇÜM METODU İLE İNSANLARIN ÇIPLAK AYAKLARLA YÜRÜDÜĞÜ ALANLARDAKİ KAYMA DİRENCİ A, B VE C CİNSİNDEN SINIFLANDIRILIR VE AŞAĞIDAKİ ŞEKİLDE KULLANIM ALANLARINA UYGUN KATEGORİLERE AYRILIR.

A - İNSANLARIN YALIN AYAK VE SOYUNMA ODALARINA YÜRÜDÜĞÜ KURU ALANLAR.

B - DUŞLAR, BANYOLAR, YÜZME HAVUZLARININ KENAR ALANLARI, ÇOCUK YÜZME HAVUZLARI, SIĞ HAVUZLARIN İÇLERİ.

C - YÜZME HAVUZUNDAKİ GEÇİŞ ALANLARI, EĞİMLİ KENARLARI GİBİ ISLAK ALANLAR

PORCELAIN TILE SURFACE SLIP RESISTANCE AND SUITABLE USING AREAS

ANTI-SLIP PROPERTIES ACCORDING TO DIN 51130, DIN 51097

AT THE MOMENT THERE IS NO EUROPEAN NORM THAT DETERMINES THE DEMANDS FOR SLIP RESISTANCE. BUT AS IN EVERYDAY USE, WHEN THE SLIP RESISTANCE IS VERY IMPORTANT, THE CURRENT GERMAN STANDARDS ARE USED FOR CLASSIFICATION.

THE SLIP RESISTANCE IS INFLUENCED BY MAINTENANCE AND WEAR.

THESE TWO STANDARDS DISTINGUISH BETWEEN THE SLIPPERINESS OF FLOOR SURFACES IN AREAS

- DIN 51130 WHERE PEOPLE WALK WITH THEIR SHOES ON (R9-R13) AND
- DIN 51097 WITH BARE FEET (A, B, C)

THE R LEVEL INDICATES THE ANGLE OF SLIPPAGE.

THE MEASUREMENT METHOD SPECIFIED IN DIN 51130 DISTINGUISHES AMONG THE FOLLOWING R SLIPPERINESS CLASSES AND PROVIDES INDICATIONS AS TO WHERE THEY MAY BE USED:

R 9 { 6° - 10° }	ENTRANCES AND STAIRWAYS ACCESSED FROM OUTSIDE, RESTAURANTS, SHOPS, CLINICS, HOSPITALS, SCHOOLS.
R 10 { 10° - 19° }	SHARED TOILETS AND SHOWERS, SMALL KITCHENS IN RESTAURANTS AND CAFES, GARAGES AND BASEMENTS.
R 11 { 19° - 27° }	FOOD PRODUCTION FACILITIES; MID-SIZED KITCHENS IN RESTAURANTS AND CAFÉS, WORKING ENVIRONMENTS WHERE THERE IS A LOT OF WATER AND SLUDGE, LABORATORIES, LAUNDRIES, HANGARS.
R 12 { 27° - 35° }	PRODUCTION FACILITIES FOR FOODS RICH IN FATS SUCH AS DAIRY PRODUCTS, FOOD OILS, CURED MEATS, LARGE KITCHENS IN RESTAURANTS AND CAFÉS, INDUSTRIAL AREAS WHERE SLIPPER SUBSTANCES ARE USED.
R 13 { > 35° }	PLACES WHERE LARGE QUANTITIES OF FATS ARE USED, FOOD PROCESSING AREAS.

THE MEASUREMENT METHOD SPECIFIED IN DIN 51097 DEFINES THE SLIP RESISTANCE FOR AREAS WHERE PEOPLE WALK WITH BARE FEET AND RESULT IS DIVIDED INTO CATEGORIES A, B AND C.

A - DRY AREAS WHERE PEOPLE WALK BAREFOOT AND CHANGING ROOMS.

B - SHOWERS, BATHROOMS, AREAS SURROUND SWIMMING POOLS, CHILDREN'S SWIMMING POOL AND BOTTOM OF SHALLOW POOLS.

C - CROSSING AREAS IN SWIMMING POOL, TILTED EDGES OF SWIMMING

SIRLI GRANİT KARO TEKNİK ÖZELLİK KABULLERİ

GLAZED PORCELAIN TILE TECHNICAL PROPERTY ACCEPTANCES

ÖZELLİK / PROPERTY	QUA STANDARTLARI / QUA STANDARTS	TSE EN 14411 Annex-G Grup BIa (Eb ≤ % 0,5)	TEST YÖNTEMİ / TEST METHOD
 UZUNLUK VE GENİŞLİK LENGTH AND WIDTH	±%0,2	±%0,6	TE EN ISO 10545/2
 KALINLIK THICKNESS	±%5,0	±%5,0	TE EN ISO 10545/2
 KENAR DÜZGÜNLÜĞÜ SIDE STRAIGHTNESS	±%0,2	±%0,5	TE EN ISO 10545/2
 GÖNYEDEN SAPMA RECTANGULARITY	±%0,2	±%0,5	TE EN ISO 10545/2
 MERKEZ EĞRİLİĞİ CENTER CURVATURE	±%0,2	±%0,5	TE EN ISO 10545/2
 KENAR EĞRİLİĞİ EDGE CURVATURE	±%0,2	±%0,5	TE EN ISO 10545/2
 KÖŞE EĞRİLİĞİ WARPAGE	±%0,2	±%0,5	TE EN ISO 10545/2
 YÜZEY KALİTESİ SURFACE QUALITY	max. %5 Kusurlu / Defective	max. %5 Kusurlu / Defective	TE EN ISO 10545/2
 SU EMME WATER ABSORPTION	Max. %0,1	Max. %0,5	TE EN ISO 10545/3
 EĞİLME MUKAVEMETİ MODULUS OF RUPTURE	Min. 51 N/mm ²	Min. 35 N/mm ²	TE EN ISO 10545/4
 ÇARPMA DAYANIMI IMPACT RESISTANCE	Dayanıklı / Resistant	Dayanıklı / Resistant	TE EN ISO 10545/5
 YÜZEY AŞINMA SINIFI SURFACE ABRASION CLASS	Beyan Edilene Uygun As Declared	Beyan Edilene Uygun As Declared	TE EN ISO 10545/7
 LINEER ISIL GENLEŞME KATSAYISI LINEER THERMAL EXPANSION COEFFICIENT	max. 9X10 ⁻⁶ K ⁻¹	Beyan Edilene Uygun As Declared	TE EN ISO 10545/8
 ISIL ŞOK DAYANIMI THERMAL SHOCK	Dayanıklı / Resistant	Dayanıklı / Resistant	TE EN ISO 10545/9
 ÇATLAMA DİRENCİ CRACKING RESISTANCE	Dayanıklı / Resistant	Dayanıklı / Resistant	TE EN ISO 10545/11
 DONA DAYANIM FROST RESISTANCE	Dayanıklı / Resistant	Dayanıklı / Resistant	TE EN ISO 10545/12
 LEKELENMEYE DAYANIM RESISTANCE TO STAINING	En Az Sınıf 3 / Min. Class 3	En Az Sınıf 3 / Min. Class 3	TE EN ISO 10545/14
 ASİT / ALKALİLERE DAYANIM RESISTANCE TO ACIDS / ALCALIDS	En Az Sınıf / Min. Class GLB - GHB	En Az Sınıf / Min. Class GLB - GHB	TE EN ISO 10545/13
 EV KİMYASALLARINA DAYANIM RESISTANCE TO HOUSEHOLD CHEM.	En Az Sınıf / Min. Class GB	En Az Sınıf / Min. Class GB	TE EN ISO 10545/13

