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The international reference standards: ISO - EN **Pag. 1/2**

The values of the main technical characteristics measured on our products, compared with international standards, are clearly shown and reproduced on our contractual documents (catalogs, price lists, etc.).
The values given in this document are common to groups of articles or series of our tiles and therefore are to be used as a guide for a first orientation in choosing the product. If required, the specific values for a given product of a determined supply can be provided depending on its intended use, when formally brought to our attention by notice in writing.

Characteristics and Test methods	**Requirements EN 14411(1) – G / ISO 13006(2) - G**	**Our general values**
Determination of water absorption - (ISO 10545-3)	Average value $E_b \leq 0,5$ % / Individual maximum 0,6%	**≤ 0,06 %** Average value and individual maximum
Classification	**Definition § 3.2 and § 3.7**	**BI_a – Porcelain tiles**
		Physical properties
Modulus of rupture - (ISO 10545-4)	Average ≥ 35 N/mm^2	≥ 35 N/mm2
Breaking strength - (ISO 10545-4)	Average ≥ 1300 N for thickness ≥ 7,5 mm Average ≥ 700 N for thickness < 7,5 mm	Complies
Resistance to surface abrasion - (ISO 10545-7)	Abrasion class and cycles passed	Class 0 - 5
Resistance to deep abrasion - (ISO 10545 - 6)	Max volume abraded < 175 / mm3	< 175 / mm3
Raccomanded use	Novabell criterion (see Annex N - ISO 13006 / EN 14411)	Class 4
Coefficient of linear thermal expansion (ISO 10545-8)	Declared value(1) / Test method available(2)	< 7,1 x 10^{-6} °C^{-1}
Thermal shock resistance (ISO 10545-9)	Pass according to EN ISO 10545-1(1)/ Test method available(2)	Complies
Crazing resistance (ISO 10545-11)	Pass according to EN ISO 10545-1(1)/ Required(2)	Complies
Frost resistance (ISO 10545-12)	Pass according to EN ISO 10545-1(1)/ Required(2)	Complies
Moisture expansion (ISO 10545-10)	Declared value(1) / Test method available(2)	≤ 0,2 mm/m
Small colour differences (ISO 10545-16)	ΔE_{cmc} < 0,75(1)	If agreed
Impact resistance - (ISO 10545-5)	Declared value(1)/Test method available(2)	COR > 0,75
Reaction to fire	Class A1 or $A1_{FL}$ (1)	**$A1_{FL}$** Classified Without Testing (CWT) – 96/603
		Chemical properties
Chemical resistance -(GL) (ISO 10545-13)		
Resistance to low and high concentrations of acids and alkalis	Declared value(1) / Manufacturer is to state classification(2)	Resistant (see "Maintenance and care" section)
Resistance to household chemicals and swimming pool salts	Minimum class B	G A
Resistance to staining (ISO 10545-14)	Minimum class 3	5 (see "Maintenance and care" section)
Release of dangerous substances (ISO 10545-15)	Declared value(1) / Test method available(2)	Pb < 0,1 / Cd < 0,01 mg/dm^2
		Dimensions and surface quality
Dimensions - (ISO 10545-2)	See ANNEX G	Complies
Surface quality - (ISO 10545-2 § 7)	**A minimum of 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles**	Complies

(1) Requirements according to EN 14411 (2) Requirements according to ISO 13006

Test methods	**Requirements and references**		**Our general values**
Determination of anti-slip properties – Workrooms and fields of activities with raised slip danger, walking method-Ramp test (**DIN 51130**)-Germany	BGR / ASR	From R9 to R13	R 10
Determination of anti – slip properties. Wet-loaded barefoot areas – Walking method – Ramp test (**DIN 51097**) - Germany	GUV-I 8527	A – B – C	A + B
Dynamic Coefficient Friction wet and dry condition (**BCR-ex BCRA**) Italy	DM n. 236 / 1989	$\mu > 0,40$	$\mu > 0,40$
Scratch hardenss of surface according to Mohs'	ex BS 6431-13 / ex EN 101		≥ 5

PRODUCT INFORMATION - IMPORTANT NOTES FOR THE CONSUMER - CLEANING AND CARE - PROPERTY RIGHTS : www.novabell.com

Our porcelain stoneware tiles are made from raw materials of great technical potential. This potential is enhanced by means of a production process where the body and surface of the material are treated in exactly the same way, where the tile's shape and appearance are rendered permanent by firing at temperatures which may even exceed 1200°C. This ensures that the surface and body of the tile become one, adding style and beauty to its intrinsic strength. Consequently, tiles' natural surfaces are stable against and unaffected by the chemicals and staining substances specified by the toughest international standards (ISO, EN, ASTM/ANSI), as documented by our product technical data sheets, including the statements of applicability which precede them. Maintenance performed at frequencies and by methods which effectively remove dirt will not only ensure hygiene but also conserve the material's beauty and, above all, its functional and safety characteristics: remember that the antislip properties declared refer to clean, new surfaces, as required by the standards. Inadequately removed dirt can, in itself, cause slipping unrelated to the properties of our coverings. Similarly, failure to remove or prevent abrasive dirt (e.g. by means of devices for cleaning the soles of shoes before coming indoors) may modify the structure of surfaces, reducing antislip properties below the values originally declared. Reference should be made to the ISO 13006/EN 14411 Annex N and ANSI A 137.1 § 6.2.2.1 standards.

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Annex N
(informative)

Classification of glazed ceramic tiles for floorings according to their resistance to surface abrasion

Where required, the following approximate classification may be used for glazed ceramic tiles intended for floorings with regard to their resistance to surface abrasion.

This classification should not be taken as providing accurate product specifications for specific requirements but rather used as guidance only (see EN ISO 10545-7).

Class 0 Glazed tiles in this class are not recommended for use on floors.

Class 1 Floor coverings in areas that are walked on essentially with soft soled footwear or bare feet without scratching dirt (e.g. residential bathrooms and bedrooms without direct access from the outside).

Class 2 Floor coverings in areas that are walked on by soft soled or normal footwear with, at the most, occasional small amounts of scratching dirt (e.g. rooms in the living areas of homes but with the exception of kitchens, entrances, and other rooms which may have a lot of traffic). This does not apply to abnormal footwear (i.e. hobnailed boots).

Class 3 Floor coverings in areas that, with normal footwear, are walked on more often with small amounts of scratching dirt (e.g. residential kitchens, halls, corridors, balconies, loggias and terraces). This does not apply to abnormal footwear (i.e. hobnailed boots).

Class 4 Floor coverings that are walked on by regular traffic with some scratching dirt so that the conditions are more severe than Class 3 (e.g. entrances, commercial kitchens, hotel, exhibition and sale rooms).

Class 5 Floor coverings that are subject to severe pedestrian traffic over sustained periods with some scratching dirt, so that the conditions are the most severe for which glazed floor tiles may be suitable (e.g. public areas such as shopping centres, airport concourses, hotel foyers, public walkways and industrial applications).

This classification is valid for the given applications under normal conditions. Consideration should be given to the footwear, type of traffic and cleaning methods expected, and the floors should be adequately protected against scratching dirt at the entrances to buildings by interposing footwear cleaning devices. In extreme cases of very heavy pedestrian traffic and quantities of scratching dirt, unglazed floor tiles from Group I can be considered.

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North America reference standards : ANSI – ASTM **Pag. 3/4**

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The values given in this document are common to groups of articles or series of our tiles and therefore are to be used as a guide for a first orientation in choosing the product. If required, the specific values for a given product of a determined supply can be provided depending on its intended use, when formally brought to our attention by notice in writing.

Characteristics and Test methods	Requirements ANSI A 137.1	Our general values
Determination of water absorption - (ASTM C 373)	Average value $E_b \leq 0,5$ %	Average value **≤ 0,06 %**
Classification	**Definition § 3.0**	**Porcelain tiles**
		Physical properties
Breaking strenghth - (ASTM C 648)	Average ≥ 250 lbf (1.11 kN) Individual ≥ 225 lbf (1.00 kN)	Complies
Visible abrasion - (ASTM C 1027)	As reported	Class 0 - 5
Raccomanded use	Novabell criterion (see Annex N - ISO 13006 / EN 14411)	Class 4
Thermal shock resistance (ASTM C 428)	Pass	Complies
Crazing resistance (ASTM C 424)	Pass	Complies
Resistance to freeze/thaw cycling (ASTM C 1026)	As reported	Resistant
DCOF Resistance (ANSI A 137.1 Section 9.6)	≥ 0.42 (1)	DCOF ≥ 0.42
Bond strength (ASTM C 482)	≥ 50 psi (0.34 MPa)	> 1 MPa
Color Uniformity (ASTM C 609 and ANSI A 137.1 Section 9.3) (2)	V0 – 3 Judds	See the specific section
		Chemical properties
Chemical resistance (ASTM C 650)	As reported	Resistant
Stain resistance (ASTM C 1378)	As reported	Resistant
		Dimensions - Calibrated tiles
Dimensions - (ASTM C 499) - (ASTM C 485) - (ASTM C 502)	See ANSI A 137.1 - Tab.10	Complies
		Dimensions - Rectified tiles
Dimensions - (ASTM C 499) - (ASTM C 485) - (ASTM C 502)	See ANSI A 137.1 - Tab.10	Complies
Scratch hardenss of surface according to Mohs'	ex BS 6431-13 / ex EN 101	≥ 5

(1) For level interior spaces expected to be walked upon when wet - (2) For V0 tiles only

PRODUCT INFORMATION - IMPORTANT NOTES FOR THE CONSUMER - CLEANING AND CARE - PROPERTY RIGHTS : www.novabell.com

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Classification of glazed ceramic tiles for floorings according to their resistance to surface abrasion

Where required, the following approximate classification may be used for glazed ceramic tiles intended for floorings with regard to their resistance to surface abrasion.

This classification should not be taken as providing accurate product specifications for specific requirements but rather used as guidance only (see EN ISO 10545-7).

Class 0	Glazed tiles in this class are not recommended for use on floors.
Class 1	Floor coverings in areas that are walked on essentially with soft soled footwear or bare feet without scratching dirt (e.g. residential bathrooms and bedrooms without direct access from the outside).
Class 2	Floor coverings in areas that are walked on by soft soled or normal footwear with, at the most, occasional small amounts of scratching dirt (e.g. rooms in the living areas of homes but with the exception of kitchens, entrances, and other rooms which may have a lot of traffic). This does not apply to abnormal footwear (i.e. hobnailed boots).
Class 3	Floor coverings in areas that, with normal footwear, are walked on more often with small amounts of scratching dirt (e.g. residential kitchens, halls, corridors, balconies, loggias and terraces). This does not apply to abnormal footwear (i.e. hobnailed boots).
Class 4	Floor coverings that are walked on by regular traffic with some scratching dirt so that the conditions are more severe than Class 3 (e.g. entrances, commercial kitchens, hotel, exhibition and sale rooms).
Class 5	Floor coverings that are subject to severe pedestrian traffic over sustained periods with some scratching dirt, so that the conditions are the most severe for which glazed floor tiles may be suitable (e.g. public areas such as shopping centres, airport concourses, hotel foyers, public walkways and industrial applications).

This classification is valid for the given applications under normal conditions. Consideration should be given to the footwear, type of traffic and cleaning methods expected, and the floors should be adequately protected against scratching dirt at the entrances to buildings by interposing footwear cleaning devices. In extreme cases of very heavy pedestrian traffic and quantities of scratching dirt, unglazed floor tiles from Group I can be considered.

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Le normative internazionali di riferimento : ISO - EN **Pag. 5/6**

I valori delle principali caratteristiche tecniche misurate sui nostri prodotti rispetto alle norme internazionali vigenti sono riportati ed illustrati chiaramente sui nostri documenti contrattuali (cataloghi, listini, etc).
I valori riportati in questo documento sono comuni a gruppi di articoli o serie di nostre piastrelle e pertanto sono da utilizzare come una guida per un primo orientamento nella scelta del prodotto. Se richiesto , i valori specifici delle caratteristiche per un determinato prodotto, possono essere forniti in funzione della sua destinazione d'uso oggetto della fornitura, quando a noi formalmente nota tramite notifica scritta.

Caratteristiche e metodi di prova	Requisiti EN 14411(1) – G / ISO 13006(2) - G	I nostri valori
Determinazione dell'assorbimento d'acqua - (ISO 10545-3)	Valore medio $E_b \leq 0,5$ % / valore massimo individuale 0,6%	**≤ 0,06 %** Valore medio e valore massimo individuale
Classificazioni	**Definizioni § 3.2 e § 3.7**	**BI_a – Gres Porcellanato**
		Proprietà Fisiche
Modulo di rottura - (ISO 10545-4)	Valore medio ≥ 35 N/mm^2	≥ 35 N/mm^2
Resistenza a rottura - (ISO 10545-4)	Media ≥ 1300 N per spessori ≥ 7,5 mm Media ≥ 700 N per spessori < 7,5 mm	Conforme
Resistenza all'abrasione superficiale - (ISO 10545-7)	Classe di abrasione e cicli superati	Class 0 - 5
Resistenza all'abrasione profonda – (ISO 10545 – 6)	Max volume abraso < 175 /mm3	< 175 / mm3
Destinazioni d'uso raccomandate	Criterio NOVABELL (rif. Allegato N – ISO 13006/EN 14411)	Class 4
Coefficiente di dilatazione termica lineare (ISO 10545-8)	Valore dichiarato(1) / Metodo di prova disponibile(2)	< 7,1 x 10^{-6} °C^{-1}
Resistenza agli sbalzi termici (ISO 10545-9)	Superato come da EN ISO 10545-1 (1) / Metodo di prova disponibile (2)	Conforme
Resistenza al cavillo (ISO 10545-11)	Superato come da EN ISO 10545-1(1)/ Richiesto(2)	Conforme
Resistenza al gelo (ISO 10545-12)	Superato come da EN ISO 10545-1(1)/ Richiesto(2)	Conforme
Dilatazione dovuta all'umidità (ISO 10545-10)	Valore dichiarato(1) / Metodo di prova disponibile(2)	≤ 0,2 mm/m
Piccole differenze di colore (ISO 10545-16)	$\Delta E_{cmc} < 0,75$(1)	Se concordato
Resistenza all'impatto - (ISO 10545-5)	Valore dichiarato(1) / Metodo di prova disponibile(2)	COR > 0,75
Reazione al fuoco	Classe **A1** or **$A1_{FL}$** (1)	Classificato senza prova $A1_{FL}$ (CWT) – 96/603 EC
		Proprietà Chimiche
Resistenza chimica -(GL) (ISO 10545-13)		
Resistenza acidi e basi (bassa e alta concentrazione)	Valore dichiarato(1) / Il produttore deve dichiarare classificazione(2)	Resistente (vedere la sezione "Manutenzione e cura")
Resistenza a prodotti chimici di uso domestico ed additivi per piscina	Minimo classe B	G A
Resistenza alle macchie (ISO 10545-14)	Minimo classe 3	5 Vedere la sezione " Manutenzione e cura"
Cessione di sostanze pericolose (ISO 10545-15)	Valore dichiarato(1) / Metodo di prova disponibile(2)	Pb < 0,1 / Cd < 0,01 mg/dm^2
		Dimensioni e qualità della superfice
Dimensioni - (ISO 10545-2)	Vedere ANNEX G	Conforme
Qualità della superficie- (ISO 10545-2 § 7)	**Un minimo del 95% delle piastrelle deve essere privo di difetti visibili tali da compromettere l'aspetto di un'area maggiore di piastrelle**	Conforme

(1) Requisiti secondo EN 14411 (2) Requisiti secondo ISO 13006

Metodi di prova	Requisiti e riferimenti		I nostri valori
Determinazione delle proprietà antisdrucciolo -Ambienti e zone di lavoro ad elevato rischio di scivolamento, procedura di calpestio – Piano inclinato (**DIN 51130**) – Germania	BGR / ASR	Da R9 a R13	R 10
Determinazione delle proprietà antisdrucciolo-Aree bagnate in cui si cammina a piedi nudi-Procedura di calpestioPiano inclinato(**DIN 51097**)-Germania	GUV-I 8527	A – B – C	A + B
Coefficiente di attrito dinamico su asciutto e bagnato (**BCR – ex BCRA**) Italy	DM n. 236 / 1989	$\mu > 0,40$	$\mu > 0,40$
Durezza secondo la scala di Mohs	ex BS 6431-13 / ex EN 101		≥ 5

INFORMAZIONI SUL PRODOTTO - AVVERTENZE PER IL CONSUMATORE - PULIZIA E MANUTENZIONE - DIRITTI DI PROPRIETA' : www.novabell.com

Le nostre piastrelle di gres porcellanato sono ottenute a partire da materie prime di grande potenzialità tecnica. Questa potenzialità viene esaltata attraverso un processo produttivo integrale per massa e superficie dove forma ed estetica sono stabilizzate dalla cottura a temperature che possono superare i 1200 °C. In questo modo la superficie risulta un tutt'uno con la massa arricchendo la forza con l'estetica e la bellezza.Grazie a questo, le superfici naturali delle piastrelle sono stabili e inalterabili rispetto alle sostanze chimiche e macchianti previste dalle normative internazionali più severe (ISO, EN, ASTM/ANSI) come documentato nelle nostre schede tecniche incluse le dichiarazioni di applicabilità che le precedono. Una manutenzione adeguata, nella frequenza e nelle modalità, alla rimozione dello sporco, oltre a garantire l'igiene, ne mantiene il valore estetico e, soprattutto, la funzionalità e la sicurezza: si ricorda che la resistenza allo scivolamento dichiarata è riferita alle superfici nuove e pulite, come prescritto dalle normative. Lo sporco non adeguatamente rimosso può essere, in sé, causa di scivolamenti non attribuibili alle nostre superfici. Analogamente la permanenza di sporco abrasivo non rimosso o prevenuto (ad esempio attraverso dispositivi di pulizia delle suole delle scarpe prima di accedere agli ambienti) può alterare la morfologia della superficie con conseguente decadimento degli originari valori di resistenza dichiarati. A tale proposito si rimanda alle norme ISO 13006/EN 14411 Annex N e ANSI A 137.1 § 6.2.2.1

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Appendice
(informativa)

Classificazione delle piastrelle di ceramica smaltate per pavimentazioni secondo la loro resistenza all'abrasione superficiale

Ove richiesto, la classificazione approssimativa seguente può essere utilizzata per piastrelle di ceramica smaltate destinate alle pavimentazioni per quanto riguarda la loro resistenza all'abrasione superficiale.

La presente classificazione non dovrebbe essere considerata in grado di fornire specifiche di prodotto precise per specifici requisiti ma piuttosto utilizzata soltanto come guida (vedere EN ISO 10545-7).

Classe 0	Le piastrelle smaltate nella presente classe non sono consigliate per l'impiego in pavimentazioni.
Classe 1	Classe 1I rivestimenti di pavimentazioni in aree soggette a calpestio essenzialmente con calzature a suola morbida o scalzi senza sporco abrasivo (per esempio bagni e camere da letto in edifici residenziali senza accesso diretto dall'esterno).
Classe 2	I rivestimenti di pavimentazioni in aree soggette a calpestio con calzature a suola morbida o normale con, tuttalpiù, piccoli quantitativi occasionali di sporco abrasivo (per esempio stanze nelle zone giorno di abitazioni private ma ad eccezione di cucine, ingressi e altre stanze che possono essere interessate da alto traffico). Non si applica nel caso di calzature anomale (per esempio scarpe chiodate).
Classe 3	I rivestimenti di pavimentazioni in aree soggette a calpestio con scarpe normali con presenza frequente di piccoli quantitativi di sporco abrasivo (per esempio cucine in edifici residenziali, sale, corridori, balconi, logge e terrazze). Non si applica nel caso di calzature anomale (per esempio scarpe chiodate).
Classe 4	I rivestimenti di pavimentazioni in aree soggette a calpestio da traffico ordinario con sporco abrasivo in modo che le condizioni siano più severe di quelle della Classe 3 (per esempio ingressi, cucine commerciali, hotel, sale esposizioni ed uffici vendite).
Classe 5	I rivestimenti di pavimentazioni soggetti a traffico pedonale intenso per periodi di tempo prolungati con sporco abrasivo, in modo che le condizioni siano le più severe per le quali le piastrelle smaltate da pavimento possono essere idonee (per esempio aree pubbliche come centri commerciali, terminal di aeroporti, atri di hotel, passaggi pedonali pubblici e applicazioni industriali).

La presente classificazione è valida per le applicazioni indicate in condizioni normali. Si dovrebbero prendere in considerazione le calzature, il tipo di traffico e i metodi di pulizia previsti, e i pavimenti dovrebbero essere adeguatamente protetti dallo sporco abrasivo all'ingresso degli edifici interponendo dispositivi di pulizia delle calzature. In casi estremi di traffico pedonale molto intenso e abbondanza di sporco abrasivo, si possono prendere in considerazione piastrelle di pavimento non smaltate del Gruppo I.

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Angewandte internationale Normen: ISO - EN **Pag. 7/8**

Die Prüfwerte, die an unseren Produkten für die wichtigsten technischen Eigenschaften gemäß den geltenden internationalen Normen gemessen wurden, sind in unseren Vertragsunterlagen (Kataloge, Preislisten etc.) klar ausgewiesen und erläutert.
Alle hier angegebenen Prüfwerte gelten für unsere Artikelgruppen bzw. Fliesenserien und dienen daher lediglich zur groben Orientierung bei der Produktauswahl. Auf formelle schriftliche Anfrage können wir die spezifische Leistungserklärung für ein bestimmtes Produkt in Abhängigkeit von seiner Zweckbestimmung zusenden.

Eigenschaft und Prüfmethode	**Anforderung EN 14411(1) – G / ISO 13006(2) - G**	**Unser Prüfwert**
Wasseraufnahme - (ISO 10545-3)	$E_b \leq 0{,}5\%$ / Max. Einzelwert 0,6%	im Mittel und max. Einzelwert **≤ 0,06 %**
Eingruppierung	**Begriffsbestimmungen § 3.2 und § 3.7**	**BI_a – Feinsteinzeug**
		Physikalische Eigenschaften
Biegefestigkeit (ISO 10545-4)	Im Mittel ≥ 35 N/mm²	≥ 35 N/mm²
Bruchlast (ISO 10545-4)	Im Mittel ≥ 1300 N, Dicke ≥ 7,5 mm Im Mittel ≥ 700 N, Dicke > 7,5 mm	Anforderung erfüllt
Beständigkeit gegen Oberflächenabrieb - (ISO 10545-7)	VVerschleißklasse und Anzahl der Schleifzyklen	Class 0 - 5
Beständigkeit gegen tiefen Abrieb - (ISO 10545 - 6)	Max Volumen abgerieben <175 / mm3	< 175 / mm3
Empfohlene Verwendung	NOVABELL-Kriterium(siehe Anhang N-ISO 13006 /EN 14411)	Class 4
Linearer Wärmeausdehnungskoeffizient (ISO 10545-8)	Angegebener Wert(1) / Prüfverfahren vorhanden(2)	$< 7{,}1 \times 10^{-6}$ °C^{-1}
Temperaturwechselbeständigkeit (ISO 10545-9)	Bestanden nach EN ISO 10545-1 (1) / Prüfverfahren vorhanden (2)	Anforderung erfüllt
Widerstand gegen Glasurrisse (ISO 10545-11)	Bestanden nach EN ISO 10545-1(1)/ gefordert(2)	Anforderung erfüllt
Frostbeständigkeit (ISO 10545-12)	Bestanden nach EN ISO 10545-1(1)/ gefordert(2)	Anforderung erfüllt
Feuchtigkeitsdehnung (ISO 10545-10)	Angegebener Wert(1) / Prüfverfahren vorhanden(2)	≤ 0,2 mm/m
Kleine Farbabweichungen (ISO 10545-16)	$\Delta E_{cmc} < 0{,}75$(1)	sofern vereinbart
Schlagfestigkeit (ISO 10545-5)	Angegebener Wert(1) / Prüfverfahren vorhanden(2)	COR > 0,75
Brandverhalten	Klasse **A1** oder **$A1_{FL}$** (1)	Klassifiziert ohne Prüfung $A1_{FL}$ (CWT) – 96/603 EG
		Chemische Eigenschaften
Beständigkeit gegen Chemikalien (GL) (ISO 10545-13)		
Beständigkeit gegen Säuren und Laugen (geringe und hohe Konzentration)	deklarierter Wert(1) / Hersteller muss Klassifizierung deklarieren(2)	beständig (siehe Abschnitt „Reinigung und Pflege“)
Beständigkeit gegen Haushaltschemikalien und Badewasserzusätze	mind. Klasse B	G A
Beständigkeit gegen Fleckenbildner (ISO 10545-14)	Min. Klasse 3	5 (siehe Abschnitt „Reinigung und Pflege“)
Freisetzung gefährlicher Stoffe (ISO 10545-15)	Angegebener Wert(1) / Prüfverfahren vorhanden(2)	Pb < 0,1 / Cd < 0,01 mg/dm²
		Abmessungen und Oberflächenbeschaffenheit
Abmessungen - (ISO 10545-2)	siehe ANNEX G	Anforderung erfüllt
Oberflächenbeschaffenheit (ISO 10545-2 § 7)	**Mindestens 95% der Fliesen und Platten müssen frei von sichtbaren Fehlern sein, die das Aussehen einer größeren Fliesen- / Plattenfläche beeinträchtigen würden**	Anforderung erfüllt

(1) Anforderungen gemäß EN 14411 (2) Anforderungen nach ISO 13006

Prüfverfahren	**Anforderungen und Verweise**		**Unser Prüfwert**
Bestimmung der rutschhemmenden Eigenschaft - Arbeitsräume und Arbeitsbereiche mit Rutschgefahr - Begehungsverfahren - Schiefe Ebene (**DIN 51130**) - Deutschland	BGR / ASR	von R9 bis R13	R 10
Bestimmung der rutschhemmenden Eigenschaft - Nassbelastete Barfußbereiche - Begehungsverfahren - Schiefe Ebene (**DIN 51097**) - Deutschland	GUV-I 8527	A - B - C	A + B
Dynamischer Reibungskoeffizient auf trockenen und nassen Oberflächen (**BCR - ex BCRA**) Italien	Min. Dekret Nr. 236 / 1989	$\mu > 0{,}40$	$\mu > 0{,}40$
Mohs-Skalenhärte	ex BS 6431-13 / ex EN 101		≥ 5

PRODUKTINFORMATIONEN – VERBRAUCHERHINWEISE – REINIGUNG UND PFLEGE – SCHUTZRECHTE : www.novabell.com

Unsere Feinsteinzeugfliesen werden aus Rohstoffen mit einem hohen Leistungspotenzial hergestellt. Im Herstellungsprozess, wenn Fliesenkörper und Oberfläche in einem einzigen Brenngang bei Brenntemperaturen von mitunter mehr als 1.200 °C ihre endgültige Form und Optik erhalten, erfährt dieses Leistungspotenzial eine zusätzliche Steigerung: Oberfläche und Fliesenkörper verschmelzen zu einem einheitlichen Ganzen und die hervorragenden Leistungsmerkmale werden durch eine hochwertige Ästhetik ergänzt.Aus diesem Grund sind die natürlichen Fliesenoberflächen, wie aus unseren Datenblättern einschließlich der vorausgehenden Anwendbarkeitserklärungen ersichtlich, den strengsten internationalen Normen (ISO, EN, ASTM/ANSI) entsprechend stabil und beständig gegenüber Chemikalien und Fleckenbildnern.Eine geeignete Pflege, die mit einer für die Schmutzentfernung angemessenen Häufigkeit und Vorgehensweise durchgeführt wird, gewährleistet nicht nur die Hygiene, sondern auch die bleibende Erhaltung der Optik, Funktionalität und Sicherheit. Die deklarierte Rutschhemmung bezieht sich normgemäß auf die neuen und sauberen Oberflächen. Nicht ordnungsgemäß entfernter Schmutz kann Rutschereignisse verursachen, die nicht auf unsere Oberflächen zurückzuführen sind. Schleifkörperhaltiger Schmutz, der nicht entfernt oder (zum Beispiel durch Reinigungsgeräte für Schuhsohlen vor dem Zugang) verhindert wurde, kann die Beschaffenheit der Oberfläche verändern, was die Hinfälligkeit der ursprünglich deklarierten Widerstandswerte zur Folge hat. In diesem Zusammenhang wird auf die Normen ISO 13006/EN 14411 Annex N e ANSI A 137.1 § 6.2.2.1 verwiesen.

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Anhang N
(informativ)

Klassifizierung glasierter keramischer Fliesen und Platten für die Herstellung von Bodenbelägen entsprechend ihrem Widerstand gegen Oberflächenverschleiß

Falls erforderlich darf die folgende grobe Klassifizierung glasierter keramischer Fliesen und Platten für die Herstellung von Bodenbelägen in Bezug auf ihren Widerstand gegen Oberflächenverschleiß angewendet werden.

Diese Klassifizierung sollte nicht dazu verwendet werden, genaue Produktspezifikationen hinsichtlich bestimmter Anforderungen bereitzustellen, sondern eher als Anleitung dienen (siehe EN ISO 10545-7).

Klasse 0 — Glasierte Fliesen und Platten dieser Klasse werden nicht zur Herstellung von Bodenbelägen empfohlen.

Klasse 1 — Bodenbeläge in Bereichen, die hauptsächlich mit Schuhen mit weicher Sohle oder barfuß ohne kratzende Verschmutzung begangen werden (z. B. Wohnbäder und Schlafzimmer ohne direkten Zugang von außen).

Klasse 2 — Bodenbeläge in Bereichen, die mit weich besohlten oder normalen Schuhen mit höchstens gelegentlichen geringen Mengen kratzender Verschmutzung begangen werden (z. B. Räume in Wohnbereichen von Häusern, mit Ausnahme von Küchen, Eingängen und weiteren Räumen, die möglicherweise häufig begangen werden). Dies gilt nicht für ungewöhnliche Fußbekleidung, (d. h. Nagelschuhe).

Klasse 3 — Bodenbeläge in Bereichen, die mit normalen Schuhen häufiger mit geringen Mengen kratzender Verschmutzung begangen werden (z. B. Wohnküchen, Flure, Korridore, Balkone, Loggien und Terrassen). Dies gilt nicht für ungewöhnliche Fußbekleidung (d. h. Nagelschuhe).

Klasse 4 — Bodenbeläge, die bei regelmäßiger Nutzung mit gewissen Mengen kratzender Verschmutzung begangen werden, so dass die Beanspruchungen stärker sind als bei Klasse 3 (z. B. Eingänge, gewerbliche Küchen, Hotels, Ausstellungs- und Verkaufsräume).

Klasse 5 — Bodenbeläge, die durch starken Fußgängerverkehr über lange Zeiträume mit gewissen Mengen kratzender Verschmutzung beansprucht werden, so dass die Beanspruchungen die höchsten sind, für die glasierte Fliesen und Platten geeignet sein können (z. B. öffentliche Bereiche wie Einkaufszentren, Abfertigungshallen auf Flughäfen, Hotelfoyers, öffentliche Fußwege und industrielle Anwendungen).

Diese Klassifizierung gilt für die angegebenen Anwendungen unter üblichen Bedingungen. Die zu erwartende Fußbekleidung und Art der Nutzung sowie die zu erwartenden Reinigungsverfahren sollten berücksichtigt werden, und die Böden sollten durch Reinigungsvorrichtungen für Schuhwerk an den Eingängen von Gebäuden ausreichend gegen kratzende Verschmutzung geschützt werden. In Extremfällen mit sehr intensiver Nutzung und großen Mengen kratzender Verschmutzung können unglasierte Bodenfliesen und -platten aus Gruppe I in Betracht gezogen werden.

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Les normes internationales de référence : ISO - EN **Pag. 9/10**

Les valeurs des principales caractéristiques techniques mesurées sur nos produits, par rapport aux seuils requis par les normes internationales en vigueur, figurent explicitement sur nos documents contractuels (catalogues, prix catalogues, etc.).
Sur ce document figurent des valeurs communes à certains de nos groupes d'articles ou de nos séries de carreaux, qui pourront se révéler utiles pour orienter son choix vers le produit souhaité. Sur simple demande qui nous sera adressée par écrit, nous pouvons fournir les valeurs spécifiques des caractéristiques concernant un produit donné, en fonction du domaine d'application faisant l'objet de la fourniture.

Caractéristiques et méthodes d'essai	**Exigences selon EN 14411(1) – G / ISO 13006(2) - G**	**Nos valeurs**
Absorption d'eau - ISO 10545-3	Valeur moyenne $E_b \leq 0,5$ % / maximum 0,6 % pour chaque carreau	Valeur moyenne et maximum **≤ 0,06 %** pour chaque carreau
Classements	**Définitions § 3.2 et § 3.7**	**BI_a – Grès cérame**
		Propriétés physiques
Module de rupture - (ISO 10545-4)	Valeur moyenne ≥ 35 N/mm²	≥ 35 N/mm²
Force de rupture - (ISO 10545-4)	Moyenne ≥ 1300 N ≥ 7,5 mm d'épaisseur Moyenne ≥ 700 N < 7,5 mm d'épaisseur	Conforme
Résistance à l'abrasion de surface - (ISO 10545-7)	Classe d'abrasion et nombre de cycles subis	Class 0 - 5
Résistance à l'abrasion profonde - (ISO 10545 - 6)	Max volume abraso < 175 /mm3	< 175 / mm3
Utilisation recommandée	Critère Novabell (rif Allegato N - ISO 13006 / EN 14411)	Class 4
Coefficient de dilatation thermique linéaire (ISO 10545-8)	Valeur déclarée(1) / Méthode d'essai disponible(2)	< 7,1 x 10^{-6} °C^{-1}
Résistance aux chocs thermiques (ISO 10545-9)	Conforme à l'EN 10545-1 (1)/ Méthode d'essai disponible (2)	Conforme
Résistance au tressaillage (ISO 10545-11)	Conforme à l'EN ISO 10545-1(1)/ Demandé(2)	Conforme
Résistance au gel (ISO 10545-12)	Conforme à l'EN ISO 10545-1(1)/ Demandé(2)	Conforme
Dilatation à l'humidité (ISO 10545-10)	Valeur déclarée(1) / Méthode d'essai disponible(2)	≤ 0,2 mm/m
Légères différences de couleur (ISO 10545-16)	$\Delta E_{cmc} < 0,75$(1)	Si convenues
Résistance au choc - (ISO 10545-5)	Valeur déclarée(1) / Méthode d'essai disponible(2)	COR > 0,75
Réaction au feu	Classe **A1** ou **$A1_{FL}$** (1)	Classé sans essai $A1_{FL}$ (CWT) – 96/603 CE
		Propriétés chimiques
Résistance chimique - (GL) (ISO 10545-13)		
Résistance aux acides et aux bases à basse et haute concentration	Valeur déclarée(1) / Le producteur doit déclarer le classement(2)	Résistant (voir la section « Entretien et soin »)
Résistance aux produits chimiques ménagers et aux additifs pour piscine	Classe B minimum	G A
Résistance aux taches (ISO 10545-14)	Classe 3 au minimum	5 (voir la section « Entretien et soin »)
Dégagement de substances dangereuses (ISO 10545-15)	Valeur déclarée(1) / Méthode d'essai disponible(2)	Pb < 0,1 / Cd < 0,01 mg/dm²
		Dimensions et qualité de surface
Dimensions - (ISO 10545-2)	Voir ANNEX G	Conforme
Qualité de surface - (ISO 10545-2 § 7)	**95 % au moins des carreaux doivent être exempts de défauts visibles susceptibles de nuire à l'aspect d'une proportion importante de la surface des carreaux**	Conforme

(1) Exigences selon la norme EN 14411 (2) Exigences selon la norme ISO 13006

Méthodes d'essai	**Exigences et références**		**Nos valeurs**
Évaluation des propriétés antidérapantes - Espaces et zones de travail présentant un risque de glissade élevé, procédure de piétinement – Plan incliné (Norme allemande **DIN 51130**)	BGR / ASR	De R9 à R13	R 10
Évaluation des propriétés antidérapantes - Zone mouillée foulée pieds-nus - procédure de piétinement – Plan incliné (Norme allemande **DIN 51097**)	GUV-I 8527	A – B – C	A + B
Coefficient de frottement dynamique sur sol sec et mouillé (selon la méthode **BCR – ex BCRA**) - Italie	DM n°236 / 1989	$\mu > 0,40$	$\mu > 0,40$
Mohs échelle de dureté	ex BS 6431-13 / ex EN 101		≥ 5

INFORMATIONS SUR LE PRODUIT - MISES EN GARDE À L'INTENTION DU CONSOMMATEUR - NETTOYAGE ET ENTRETIEN - DROITS DE PROPRIÉTÉ : www.novabell.com

Nos carreaux en grès cérame sont issus de matières premières présentant un haut potentiel technique. Ce potentiel est valorisé par un procédé de production intégral pour la masse et la surface où la forme et l'esthétique sont stabilisées par une cuisson à des températures pouvant dépasser 1 200°C. La surface forme ainsi un tout avec la masse, ce qui renforce son aspect esthétique et sa beauté.Grâce à ce procédé, les surfaces naturelles des carreaux sont stables et inaltérables face aux substances chimiques et tachantes mentionnées dans les normes internationales les plus sévères (ISO, EN, ASTM/ANSI) comme l'indiquent nos fiches techniques y compris les déclarations d'applicabilité qui les précèdent.Une fréquence et des méthodes d'entretien judicieuses, visant à éliminer efficacement la saleté, sont non seulement un gage d'hygiène, mais permettent également de préserver la valeur esthétique et surtout la fonctionnalité et la sécurité du sol. Rappelons en effet que la résistance à la glissance déclarée se rapporte à des surfaces neuves et propres, conformément aux règlementations. La saleté mal éliminée peut rendre le sol glissant sans mettre en cause la résistance à la glissance de nos surfaces. De même qu'un sol sur lequel reste de la saleté abrasive parce qu'elle n'a pas été éliminée ou prévenue (par la présence de dispositifs de nettoyage des semelles de chaussures avant d'entrer, par exemple) peut altérer la morphologie de la surface et lui faire perdre les valeurs de résistance déclarées à l'origine. À ce propos, voir les normes ISO 13006 et EN 14411 Annexe N et ANSI A 137.1 § 6.2.2.1.

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Annexe N
(informative)

Classification des carreaux céramiques émaillés pour sols en fonction de leur résistance à l'abrasion de surface

Le cas échéant, la classification approximative suivante des carreaux céramiques émaillés peut être utilisée pour les sols, pour ce qui concerne leur résistance à l'abrasion de surface.

Il convient que cette classification ne soit pas considérée comme définissant des spécifications de produit précises pour des besoins spécifiques mais comme un guide uniquement (voir l'EN ISO 10545-7).

Classe 0 Les carreaux émaillés de cette catégorie ne sont pas recommandés pour une utilisation sur sols.

Classe 1 Revêtements de sol pour les surfaces sur lesquelles on marche essentiellement avec des chaussures à semelles souples, voire pieds nus, et non exposées à des particules abrasives (par exemple, salles de bain et chambres à coucher des habitations sans accès direct depuis l'extérieur).

Classe 2 Revêtements de sol pour les surfaces sur lesquelles on marche avec des chaussures à semelles souples ou normales et au pire exposées à de petits dépôts occasionnels de particules abrasives (par exemple, «pièces à vivre» des habitations, à l'exception de la cuisine, l'entrée et toutes autres pièces exposées à un passage intense). Ceci ne s'applique pas aux chaussures d'un type inhabituel, telles que des bottes ferrées.

Classe 3 Revêtements de sol pour les surfaces sur lesquelles on marche avec des chaussures habituelles, et souvent exposées à de petits dépôts de particules abrasives (par exemple, cuisines, vestibules, couloirs, balcons, loggias et terrasses des habitations). Ceci ne s'applique pas aux chaussures d'un type inhabituel, telles que des bottes ferrées.

Classe 4 Revêtements de sol sur lesquels le passage est normal, avec des particules abrasives, dans des conditions plus sévères que pour la classe 3 (par exemple, entrées, cuisines d'entreprise, hôtels, salles d'exposition et de vente).

Classe 5 Revêtements de sol soumis à un passage intense de piétons, à un rythme soutenu avec des particules abrasives, correspondant aux conditions les plus sévères pour lesquelles les carreaux émaillés peuvent convenir (par exemple, zones publiques comme les centres commerciaux, les halls d'aéroport, les halls d'hôtel, les passages publics pour piétons et les applications industrielles).

Cette classification est valable pour les applications citées dans des conditions normales. Il convient de tenir compte du type de chaussures, du type de circulation et des méthodes de nettoyage prévues et de protéger convenablement les sols des risques de rayures en prévoyant, à l'entrée des bâtiments, des paillassons ou d'autres types de protection contre les particules abrasives. Dans les cas extrêmes de circulation très intense de piétons et de grandes quantités d'impuretés pouvant provoquer des rayures, l'utilisation de carreaux non émaillés appartenant au Groupe I peut être envisagée.

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Las normas de referencia internacionales: ISO - EN **Pag. 11/12**

Nuestros documentos contractuales (catálogos, listas de precios, etc.) indican y reproducen claramente los valores de las principales características técnicas medidas en nuestros productos y comparadas con las normas internacionales.
Los valores indicados en este documento son comunes a grupos de artículos o series de nuestras baldosas y por tanto deben utilizarse como guía de orientación inicial a la hora de elegir el producto. En caso necesario, podemos proporcionar los valores específicos de las características de un determinado producto suministrado, en función de su uso previsto, siempre que éste nos sea comunicado formalmente por escrito.

Características y métodos de ensayo	**Requisitos EN 14411(1) - G / ISO 13006(2) - G**	**Nuestros valores**
Determinación de la absorción de agua (ISO 10545-3)	Valor medio $E_b \leq 0,5$ % / Valor individual máximo 0,6 %	Valor medio y valor individual máximo < 0,04%
Clasificación	**Definiciones § 3.2 y § 3.7**	**BI_a – Gres porcelánico**
		Características físicas
Módulo de rotura (ISO 10545-4)	Valor individual mínimo ≥ 32 N/mm^2	≥ 35 N/mm^2
Fuerza de rotura (ISO 10545-4)	Media ≥ 1300 N para grosor ≥ 7,5 mm Media ≥ 700 N para grosor < 7,5 mm	Cumple
Resistencia a la abrasión (ISO 10545-7)	Clase de abrasión y número de ciclos	Class 0 - 5
Resistance to deep abrasion - (ISO 10545 - 6)	Max volume abraded < 175 / mm3	< 175 / mm3
Novabell classification of abrasion resistance	Annex N	Class 4
Coeficiente de dilatación térmica lineal (ISO 10545-8)	Valor declarado(1) / Método de ensayo disponible(2)	< 7,1 × 10^{-6} °C^{-1}
Resistencia al choque térmico (ISO 10545-9)	Superado conforme a EN ISO 10545-1(1) / Método de ensayo disponible(2)	Cumple
Resistencia al cuarteo (ISO 10545-11)	Superado conforme a EN ISO 10545-1(1)/ Exigido(2)	Cumple
Resistencia a la helada (ISO 10545-12)	Superado conforme a EN ISO 10545-1(1)/ Exigido(2)	Cumple
Dilatación por humedad (ISO 10545-10)	Valor declarado(1) / Método de ensayo disponible(2)	≤ 0,2 mm/m
Pequeñas diferencias de color (ISO 10545-16)	$\Delta E_{cmc} < 0,75$(1)	Si está acordado
Resistencia al impacto (ISO 10545-5)	Valor declarado(1) / Método de ensayo disponible(2)	COR > 0,75
Reacción al fuego	Clase **A1** o **$A1_{FL}$**(1)	Clasificado como $A1_{FL}$ sin ensayo (CWT) –
		Características químicas
Resistencia química (GL) (ISO 10545-13)		
Resistencia a ácidos y álcalis (altas y bajas concentraciones)	Valor declarado(1) / El fabricante está obligado a declarar la clase(2)	Resistente (véase la sección «Mantenimiento y
Resistencia a productos domésticos de limpieza y sales para piscinas	Mínimo Clase B	G A
Resistencia a las manchas (ISO 10545-14)	Mínimo Clase 3	5 (véase la sección «Mantenimiento y cuidado»)
Emisión de sustancias peligrosas (ISO 10545-15)	Valor declarado(1) / Método de ensayo disponible(2)	Pb < 0,1 / Cd < 0,01 mg/dm^2
		Dimensiones y aspecto superficial
Dimensiones - (ISO 10545-2)	Véase ANNEX G	Cumple
Calidad superficial (ISO 10545-2 § 7)	**Un mínimo del 95 % de las baldosas deben estar libres de defectos visibles que pudieran perjudicar el aspecto de una superficie considerable de baldosas.**	Cumple

(1) Requisitos según EN 14411 (2) Requisitos según ISO 13006

Métodos de ensayo	**Requisitos y referencias**		**Nuestros valores**
Determinación de la resistencia al resbalamiento. Lugares y zonas de trabajo con mayor riesgo de resbalamiento. Ensayo de la rampa con el método de andar (pie calzado) (**DIN 51130**) – Alemania	BGR / ASR	De R9 a R13	R 10
Determinación de la resistencia al resbalamiento. Zonas húmedas de andar descalzo. Ensayo de la rampa con el método de andar (pie desnudo) (**DIN 51097**) – Alemania	GUV-I 8527	A – B – C	A + B
Coeficiente de fricción dinámico en seco y en húmedo (**BCR – ex BCRA**) – Italia	Decreto Ministerial italiano n.° 236 / 1989	$\mu > 0,40$	$\mu > 0,40$
Mohs'	ex BS 6431-13 / ex EN 101		≥ 5

INFORMACIÓN SOBRE EL PRODUCTO - ADVERTENCIAS PARA EL CONSUMIDOR - LIMPIEZA Y MANTENIMIENTO - DERECHOS DE PROPIEDAD : www.novabell.com

Nuestras baldosas de gres porcelánico se obtienen a partir de materias primas cuyo gran potencial técnico se realza a través de un proceso de fabricación integral de la masa y la superficie en el que la forma y el aspecto del producto se estabilizan mediante la cocción a temperaturas que pueden llegar a superar los 1200 °C. Esto crea una unión indisoluble entre la superficie y la masa con el fin de incorporar la fuerza, la belleza y la estética en una sola pieza. Gracias a ello, las superficies naturales de las baldosas ofrecen estabilidad y resistencia a las sustancias químicas y manchantes previstas por las normas internacionales más rigurosas (ISO, EN, ASTM/ANSI), como documentan nuestras fichas técnicas, incluidas las declaraciones de aplicabilidad que las preceden. La correcta realización del mantenimiento y la limpieza, con la frecuencia y las modalidades adecuadas, garantiza la higiene y conserva el valor estético y, sobre todo, la funcionalidad y la seguridad: cabe recordar que la resistencia al resbalamiento declarada se refiere a superficies nuevas y limpias, como establece la normativa. Si la suciedad no se elimina de forma apropiada, existe el riesgo de resbalamiento por causas no atribuibles a nuestras superficies. Asimismo, si no se previene o no se elimina prontamente la suciedad abrasiva (por ejemplo, limpiando las suelas de los zapatos antes de entrar en un local), puede alterarse la morfología de la superficie, con la consiguiente pérdida de los valores originales de resistencia declarados. Véanse a este efecto las normas ISO 13006 / EN 14411, Anexo N, y ANSI A 137.1, ap. 6.2.2.1.

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Annex N
(informative)

Classification of glazed ceramic tiles for floorings according to their resistance to surface abrasion

Where required, the following approximate classification may be used for glazed ceramic tiles intended for floorings with regard to their resistance to surface abrasion.

This classification should not be taken as providing accurate product specifications for specific requirements but rather used as guidance only (see EN ISO 10545-7).

Class 0	Glazed tiles in this class are not recommended for use on floors.
Class 1	Floor coverings in areas that are walked on essentially with soft soled footwear or bare feet without scratching dirt (e.g. residential bathrooms and bedrooms without direct access from the outside).
Class 2	Floor coverings in areas that are walked on by soft soled or normal footwear with, at the most, occasional small amounts of scratching dirt (e.g. rooms in the living areas of homes but with the exception of kitchens, entrances, and other rooms which may have a lot of traffic). This does not apply to abnormal footwear (i.e. hobnailed boots).
Class 3	Floor coverings in areas that, with normal footwear, are walked on more often with small amounts of scratching dirt (e.g. residential kitchens, halls, corridors, balconies, loggias and terraces). This does not apply to abnormal footwear (i.e. hobnailed boots).
Class 4	Floor coverings that are walked on by regular traffic with some scratching dirt so that the conditions are more severe than Class 3 (e.g. entrances, commercial kitchens, hotel, exhibition and sale rooms).
Class 5	Floor coverings that are subject to severe pedestrian traffic over sustained periods with some scratching dirt, so that the conditions are the most severe for which glazed floor tiles may be suitable (e.g. public areas such as shopping centres, airport concourses, hotel foyers, public walkways and industrial applications).

This classification is valid for the given applications under normal conditions. Consideration should be given to the footwear, type of traffic and cleaning methods expected, and the floors should be adequately protected against scratching dirt at the entrances to buildings by interposing footwear cleaning devices. In extreme cases of very heavy pedestrian traffic and quantities of scratching dirt, unglazed floor tiles from Group I can be considered.

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Применяемые международные стандарты: ISO - EN **Pag. 13/14**

Полученные путем измерений основные технические характеристики нашей продукции и их сравнение с международными стандартами явно указаны в нашей контрактной документации (каталогах, прайс-листах и проч.).
Указанные в настоящем документе значения применимы к целым группам изделий или сериям нашей плитки, поэтому ими следует руководствоваться на начальном этапе выбора необходимой продукции. В случае необходимости по письменному запросу могут быть предоставлены характеристики конкретного изделия из поставляемой партии с учетом его назначения.

Характеристики изделий и методики их оценки	**Требуемые значения показателей EN 14411(1) – G / ISO 13006(2) – G**	**Показатели нашей продукции**
Определение водопоглощения (по стандарту ISO 10545-3)	Среднее значение E_b ≤ 0,5 % / максимальное одиночное значение 0,6 %	Среднее значение и макс. одиночное значение < 0,04 %
Классификация	**Определения см. в §§ 3.2 и 3.7**	**BI_a — керамогранит**
		Физические свойства
Предел прочности на разрыв (по стандарту ISO 10545-4)	Среднее значение ≥ 35 Н/мм^2	≥ 35 Н/мм^2
Предел прочности (по стандарту ISO 10545-4)	Среднее значение ≥ 1300 Н при толщине ≥ 7,5 мм Среднее значение ≥ 700 Н при толщине < 7,5 мм	Соответствует
Сопротивление истиранию (по стандарту ISO 10545-7)	Класс истирания и число пройденных циклов	Class 0 - 5
Resistance to deep abrasion - (ISO 10545 - 6)	Max volume abraded < 175 / mm3	< 175 / mm3
Novabell classification of abrasion resistance	Annex N	Class 4
Коэффициент линейного теплового расширения (по стандарту ISO 10545-8)	Заявленное значение(1) / методика испытаний имеется в наличии(2)	< 7,1 x 10^{-6} °C^{-1}
Термоустойчивость (по стандарту ISO 10545-9)	Соответствует стандарту EN ISO 10545-1 (1)/ методика испытаний имеется в наличии (2)	Соответствует
Устойчивость к образованию трещин (по стандарту ISO 10545-11)	Соответствует стандарту EN ISO 10545-1(1)/ требуется(2)	Соответствует
Морозостойкость (по стандарту ISO 10545-12)	Соответствует стандарту EN ISO 10545-1(1)/ требуется(2)	Соответствует
Расширение при влагопоглощении (по стандарту ISO 10545-10)	Заявленное значение(1) / методика испытаний имеется в	≤ 0,2 мм/м
Незначительные цветовые отклонения (по стандарту ISO 10545-16)	ΔE_{cmc} < 0,75(1)	По согласованию с заказчиком
Ударопрочность (по стандарту ISO 10545-5)	Заявленное значение(1) / методика испытаний имеется в наличии(2)	COR > 0,75
Пожароопасность	Класс **A1** или **$A1_{FL}$**(1)	Классифицирован без проведения испытания $A1_{FL}$ (CWT) – 96/603 EC
		Химические свойства
Химическая стойкость (GL) (по стандарту ISO 10545-13)		
Сопротивление воздействию кислот и щелочей (низкой и высокой концентрации)	Заявленное значение(1) / Завод-изготовитель должен объявить классификацию изделия(2)	Стойкий (см. раздел «Обслуживание и уход»)
добавок для бассейнов	Соответствует как минимум классу B	G A
Стойкость к образованию пятен (по стандарту ISO 10545-14)	Соответствует как минимум классу 3	5 (см. раздел «Обслуживание и уход»)
Выделение опасных веществ (по стандарту ISO 10545-15)	Заявленное значение(1) / методика испытаний имеется в наличии(2)	Pb < 0,1 / Cd < 0,01 мг/дм^2
		Габариты и качество поверхности
Габариты - (по стандарту ISO 10545-2)	см. раздел ANNEX G	Соответствует
Качество поверхности (по стандарту ISO 10545-2 § 7)	**Не менее чем у 95 % плиток должны отсутствовать видимые дефекты, нарушающие картину восприятия большого участка, выложенного плитками**	Соответствует

(1) Требования согласно стандарту EN 14411 (2) Требования согласно стандарту ISO 13006

Методики испытаний	**Требования и нормативы**		**Показатели нашей продукции**
Определение свойств противоскольжения: рабочие помещения и рабочие зоны с повышенной опасностью поскользнуться; испытание на прохождение наклонной плоскости (стандарт **DIN 51130**) — Германия	BGR / ASR	R9–R13	R 10
Определение свойств противоскольжения: увлажняемые зоны, предназначенные для ходьбы босиком; испытание на прохождение по наклонной плоскости (стандарт **DIN 51097**) — Германия	GUV-I 8527	A – B – C	A + B
Коэффициент динамического трения сухой и мокрой поверхности (**BCR – в соответствии с BCRA**) — Италия	Постановление Министерства № 236 / 1989 г.	μ > 0,40	μ > 0,40
Mohs'	ex BS 6431-13 / ex EN 101		≥ 5

СВЕДЕНИЯ О ПРОДУКЦИИ – ПРЕДУПРЕЖДЕНИЯ ДЛЯ ПОТРЕБИТЕЛЯ – ЧИСТКА И УХОД – ПРАВО СОБСТВЕННОСТИ : www.novabell.com

Наша керамогранитная плитка изготавливается из сырья, обладающего высокими техническими характеристиками. Этим обусловлено ее превосходное качество, достигаемое за полный цикл производства с обжигом массы при температуре, которая может превышать 1200 °C, в результате чего полностью спекаются отдельные компоненты, плитка приобретает необходимую прочность, а на ее поверхности формируется оригинальный рисунок.Благодаря этому, натуральные поверхности плитки являются устойчивыми и неизменяемыми при воздействии химических и пятнообразующих веществ, предусматривающихся самыми жесткими международными стандартами (ISO, EN, ASTM/ANSI), что зафиксировано в наших технических описаниях, а также в прилагающихся к ним декларациях применимости. Уход, выполняемый с нужной периодичностью и правильными способами удаления грязи, не только обеспечивает гигиену, но и сохраняет эстетическую ценность и, прежде всего, функциональность и безопасность. Следует помнить, что заявленное сопротивление скольжению относится к новым и чистым поверхностям, как предписывается стандартами. Неправильно очищенная грязь может стать причиной скольжения, которое не зависит от наших материалов. Аналогично этому, наличие неудаленной абразивной грязи или же отсутствие средств защиты от нее (например, средства очистки подошв обуви на входе в помещение) может изменить морфологию поверхностей с вытекающей из этого отменой изначально заявленных значений прочности. По этим вопросам следует обращаться к стандартам ISO 13006/EN 14411 Annex N и ANSI A 137.1 § 6.2.2.1.

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Ceramics of Italy

ASPEN RT

Annex N
(informative)

Classification of glazed ceramic tiles for floorings according to their resistance to surface abrasion

Where required, the following approximate classification may be used for glazed ceramic tiles intended for floorings with regard to their resistance to surface abrasion.

This classification should not be taken as providing accurate product specifications for specific requirements but rather used as guidance only (see EN ISO 10545-7).

Class 0	Glazed tiles in this class are not recommended for use on floors.
Class 1	Floor coverings in areas that are walked on essentially with soft soled footwear or bare feet without scratching dirt (e.g. residential bathrooms and bedrooms without direct access from the outside).
Class 2	Floor coverings in areas that are walked on by soft soled or normal footwear with, at the most, occasional small amounts of scratching dirt (e.g. rooms in the living areas of homes but with the exception of kitchens, entrances, and other rooms which may have a lot of traffic). This does not apply to abnormal footwear (i.e. hobnailed boots).
Class 3	Floor coverings in areas that, with normal footwear, are walked on more often with small amounts of scratching dirt (e.g. residential kitchens, halls, corridors, balconies, loggias and terraces). This does not apply to abnormal footwear (i.e. hobnailed boots).
Class 4	Floor coverings that are walked on by regular traffic with some scratching dirt so that the conditions are more severe than Class 3 (e.g. entrances, commercial kitchens, hotel, exhibition and sale rooms).
Class 5	Floor coverings that are subject to severe pedestrian traffic over sustained periods with some scratching dirt, so that the conditions are the most severe for which glazed floor tiles may be suitable (e.g. public areas such as shopping centres, airport concourses, hotel foyers, public walkways and industrial applications).

This classification is valid for the given applications under normal conditions. Consideration should be given to the footwear, type of traffic and cleaning methods expected, and the floors should be adequately protected against scratching dirt at the entrances to buildings by interposing footwear cleaning devices. In extreme cases of very heavy pedestrian traffic and quantities of scratching dirt, unglazed floor tiles from Group I can be considered.