

LANDSCAPING & SPECIAL APPLICATIONS



Vertical and Horizontal
Drainage Systems



PERCHÉ UTILIZZARE UN MATERASSINO ELASTICO NEL GARDENING?

Maggiore sicurezza e morbidezza

Il materassino aiuta a prevenire e ridurre lesioni e traumi. Mentre è un obbligo l'utilizzo per applicazioni sportive e nei parchi gioco, per le applicazioni domestiche è piacevole sentire la superficie in erba artificiale liscia e delicata sotto i loro piedi.

Minore intaso -resilienza più alta

L'intaso ovvero la sabbia può migrare sulla superficie del tappeto erboso. Succede più spesso nelle aree maggiormente stressate dal calpestio o dal passaggio frequente di persone e/o animali. I materassini elastici riducono la quantità di intaso (ed la conseguente "fuoriuscita" dal pelo dell'erba) abbassando l'altezza delle fibre sintetiche ed aumentando la densità della struttura stessa. Il concetto di ammortizzante non è più demandato allo stesso strato di sabbia ma al materassino stesso garantendo sempre un adeguato ed un costante livello di comfort che non dipende più dalla quantità di sabbia e che ne riduce così in modo efficace la manutenzione (re-infill). Oggi, la maggior parte delle imprese considera il materassino elastico come una ulteriore garanzia di efficienza per un efficiente giardino o terrazza o tetto con finitura in erba artificiale.

Offre eccellenti proprietà di isolamento ,drenaggio verticale grazie ai fori realizzati meccanicamente sulla superficie del materassino che garantiscono una uniforme velocità di infiltrazione dell'acqua e drenaggio orizzontale grazie ai canali presenti in modo ripetitivo per garantire un'elevata evacuazione nel piano dell'acqua filtrata.



POURQUOI UTILISER DU MATÉRIEL ÉLASTIQUE DANS LE JARDINS?

Augmentation/amélioration du niveau de sécurité et de la souplesse

Le shockpad permet de réduire et de prévenir les blessures et traumatismes ; une condition nécessaire pour les joueurs, les athlètes et les enfants mais un confort aussi recherché par les utilisateurs privés.

Moins de remplissage, plus de résistance

Les matériaux de remplissage peuvent bouger sur la surface et spécialement dans les zones à fortes utilisations. Le shockpad réduit la quantité de granulés en réduisant la hauteur du fil et par conséquent augmente la densité du fil en sois. Les avantages de l'utilisation du schockpad ne se limitent pas à la réduction des matériaux et l'amélioration du niveau de sécurité mais représente aussi une assurance supplémentaire aux utilisateurs.

Il offre une excellente isolation et des propriétés de drainage vertical élevé avec des trous mécaniques pour garantir un taux d'infiltration uniforme en horizontale avec des canaux multi-

¿POR QUÉ USAR UNA BASE ELÁSTICA EN JARDINERÍA?

Aumento en Seguridad y Amortiguación

Shock pad previene y reduce lesiones y traumas. Es absolutamente imprescindible para atletas y niños, aunque también los particulares quieren tener una superficie lisa y suave bajo sus pies.

Menos relleno-Mayor resiliencia

El relleno puede migrar a la superficie del césped y esto sucede especialmente en áreas de mucho tráfico. El uso de shock pad reduce la cantidad de relleno (y el subsiguiente relleno "salpicado") bajando el espesor y aumentando la densidad del mismo. El concepto de tener amortiguadores dentro del relleno había cambiado debido a los bajos niveles de amortiguación conseguidos y a su mantenimiento extensivo. Sin embargo hoy en día, la mayoría de los constructores y usuarios consideran el shock pad como un seguro adicional.

Ofrece un excelente aislamiento y altas propiedades de drenaje con orificios mecánicos para garantizar una velocidad de filtración vertical uniforme y con canales múltiples para garantizar una evacuación rápida horizontal del agua.

WARUM FALLSCHUTZMATTE FÜR LANDSCHAFTSGESTALTUNG?

Erhöht die Sicherheit und Weichheit

Die Fallschutz- und Drainagematten unterstützen das Verhindern und Erringern von Verletzungen und Traumata. Während die Matten erforderlich sind für Kindern und Sportler, werden Hausbesitzer es sehr lieben eine sanfte und glatte Oberfläche an den Füßen zu fühlen.

Weniger Einfüllung Höhere Belastbarkeit

Die Einfüllung kann sich verschieben in der Oberfläche des Kunstrasens. Es geschieht oft an Stellen mit viel Bewegung. Die Fallschutzmatten reduzieren die Mengen von Einfüllung (und damit auch das „Aufspringen“) durch die Höhe der Fasern zu verringern und die Dichte von den Fasern selber zu erhöhen. Das Konzept mit Fallschutz in der Einfüllung hat sich geändert wegen eine niedrigere Kraftabbau und umfangreiche Wartung.

Heutzutage betrachten auch die meisten geschäftliche Besitzer die Fallschutzmatten als eine schöne und extra Versicherung.

Bietet eine hervorragende Isolierung und große vertikale Drainage-Eigenschaften mit gebohrte Löchern für eine gleichmäßige Infiltrierung, und mit Kanäle um eine schnelle horizontale Abwässerung zu garantieren.

Why Shockpad for landscape ?



Increased Safety and Softness

Shock pads help to prevent and to reduce injuries and traumas. While required for athletes and children, homeowners may love to feel smooth and delicate surface under their feet as well.

Less Infill - the Higher Resilience

Infill can migrate on the turf surface. It happens more often in heavy traffic areas. Shock pads reduce the amount of infill (and subsequent infill "splash") by lowering the height of the fiber pile and increasing the density of the pile itself. The concept of having shock pads inside infill itself had changed due to low shock-attenuation levels and extensive maintenance. Today, most business owners regard shock pads like just like an extra insurance.

Offers excellent insulation and high drainage properties vertically with mechanical holes to guarantee uniform infiltration rate and horizontally with repetitive channels to guarantee fast evacuation on plane of the water.

- Fall Protection
- Good biomechanical properties: it reduces the risk of damage and injuries
- Simple installation
- Stability and strength unmatched wear
- Excellent quality price
- No maintenance
- Excellent durability
- Eco-friendly, highly flexible, does not freeze in winter
- Drainage excellent thanks to drilling and channels made mechanically during the production process, ensuring consistently high performance values.

Benefits



HHc	Alta capacità idraulica	Alta Capacidad Hidráulica	Capacité hydraulique élevée	Hohe hydraulische Kapazität
C	Con presenza di canali per il drenaggio	Con presencia de canales para el drenaje	Avec la présence de canaux de drainage	Mit gepresste Kanäle für extra Drainage
ND	Nessun drenaggio, solo dal perimetro esterno della lastra	sin drenaje, solo del perimetro exterior de la placa	régénéréePas de drainage, seulement à partir du périmètre extérieur du fouille	Keine Entwässerung, nur aus dem äußeren Umfang der Bramme
yd2	Yard quadrato Misura americana	Yarda cuadrada Medida estadounidense	Cour carrée Mesure américaine	Quadratischer Hor Amerikanische Maßnahme
USA cu	Misure americane personalizzate	USA Medidas personalizadas	Mesures personnalisées aux États-Unis	Benutzerdefinierte Maße U.S.

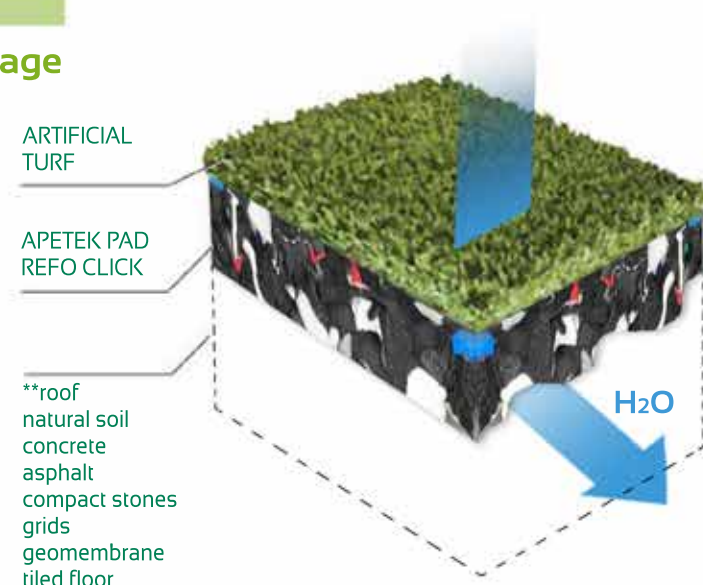
- C With the presence of channels for drainage
- ND No Drainage, only from the perimeter of the plate
- yd2 Square yard, american measures
- HHc High Hydraulic Capacity
- USA cu USA Customary Units

Meanings



Graphic section of REFO CLICK

Vertical and Horizontal Drainage



**All surface indicated should be flat and with the right slope

SOLUTION FOR WATERPROOFED SURFACES OR WHERE DRAINAGE CAPACITY OF THE TERRAIN IS POOR

Water drainage in your landscaping is just as important as landscape irrigation.

Sometimes water drainage gets overlooked and not implied. Water drainage is generally run through piping buried underneath the surface of your residential home. If your building a new home or finding puddles of water throughout your back and front yards then you must consider opting for a good water drainage systems.

Water drainage is highly important to residential homes because it will benefits your landscape immensely and solve many common water issues which are caused by; flooding, excessive rainfall, poor drainage and soil erosion.

Excess amounts of water in landscaped gardens and lawns may result in plant diseases and even killing several expensive flowers and trees which have taken years to look great and become focal points throughout your landscape.

This is why a proper water drainage system is so important to prevent his from occurring.

So, really take into consideration the distribution of water on your property!



Graphic section of REFO CLICK

Vertical and Horizontal Drainage

SOLUZIONE PER LE SUPERFICI IMPERMEABILI O DOVE LA PERMEABILITA' DEL TERRENO E' RIDOTTA

Il drenaggio dell'acqua nel vostro GIARDINO è altrettanto importante come l'irrigazione dello stesso. A volte il drenaggio dell'acqua viene trascurato e non adeguatamente considerato. Il drenaggio dell'acqua è generalmente eseguito attraverso tubazioni interrate sotto la superficie della vostra area residenziale. In una nuova costruzione o qualora si presentassero aree con visibile ristagno d'acqua nel vostro giardino allora si deve considerare di optare per un buon sistema di drenaggio.

Il drenaggio dell'acqua è molto importante per le case residenziali perché beneficerà immensamente il tuo giardino risolvendo molti problemi comuni di acqua che sono causati da : inondazioni, precipitazioni eccessive, scarso drenaggio ed erosione del suolo. L'eccesso di acqua nei giardini e nei prati sintetici può causare malattie delle piante e persino generare una moria di fiori costosi e alberi che hanno impiegato anni per poter crescere rigogliosi ed in perfetto equilibrio con il micro ecosistema del vostro giardino.

Questo è il motivo per cui un adeguato sistema di drenaggio dell'acqua è così importante per impedire che si verifichi tutto quanto sopra descritto e quindi prendere in seria considerazione la corretta distribuzione dell'acqua sulla vostra proprietà!

SOLUCIÓN PARA SUPERFICIES IMPERMEABLES O DONDE LA CAPACIDAD DE DRENAJE DEL TERRENO ES POBRE

El drenaje de agua en su jardín es tan importante como su riego. Algunas veces el drenaje del agua se pasa por alto y no se prevé. El drenaje del agua generalmente se realiza a través de tuberías enterradas debajo de la superficie de su hogar. Si está construyendo una casa nueva o si ya observa charcos de agua en sus patios frontales o traseros, debe considerar seriamente la opción de un buen sistema de drenaje del agua. El drenaje del agua es muy importante para las casas residenciales porque beneficia inmensamente no sólo su paisaje sino que resuelve muchos problemas comunes relacionados con el agua causados por; inundaciones, lluvias excesivas, drenaje pobre y erosión del suelo.

Cantidades excesivas de agua en jardines y en su césped pueden provocar enfermedades de sus plantas e incluso llegar a destruir flores y árboles costosos que han tardado años en lucir bien y convertirse en puntos de referencia de su paisaje. Esta es la razón por la que un sistema de drenaje de agua adecuado es tan importante para evitar que esto ocurra. Por lo tanto, es muy necesario tener en cuenta la distribución de agua en su propiedad!

SOLUTION POUR TERRAINS PERMÉABLES OU AVEC FAIBLE SYSTÈME DE DRAINAGE

L'évacuation et le drainage de l'eau dans le jardin est aussi importante que l'irrigation. Parfois, le drainage de l'eau est

négligé et non impliqué. Le drainage est généralement effectué à travers la tuyauterie enfouie sous la surface de votre maison d'habitation. Si vous construisez une nouvelle maison et vous trouvez des flaques d'eaux dans votre jardin, vous devez envisager d'opter pour un bon système de drainage. Le drainage de l'eau est très important dans les maisons résidentielles, car il va améliorer votre paysage et résoudre de nombreux problèmes d'eau qui sont causés par les inondations, les précipitations excessives, le mauvais drainage et l'érosion des sols.

Les quantités excessives d'eaux dans les jardins peuvent entraîner des maladies des plantes et même tuer plusieurs fleurs et arbres chers qui ont nécessité des années pour être beaux et devenir des points focaux dans tout votre paysage.

C'est pourquoi un bon système de drainage de l'eau est si important pour protéger votre jardin. Alors, prenez vraiment en considération la distribution de l'eau sur votre propriété!

DIE LÖSUNG FÜR WASSERDICHT E OBERFLÄCHEN ODER DORT WO DIE DRAINAGEKAPAZITÄT ZU GERING IST

WasserDrainage in Ihren Garten und Landschaftsgestaltung ist genau so wichtig wie Irrigation. Manchmal wird die Drainage übersehen und nicht impliziert. Wasser Drainage wird normalerweise durch Rohre unter der Oberfläche Ihres Gartens geleitet. Wenn man eine neues Haus baut oder man hat schon Pfützen mit Wasser rundum im Gelände dann ist es wichtig ein gutes Wasserdrainage System ein zu bauen. Wasserdrainage is sehr wichtig bei Ihrem Haus weil es extra Leistungen bringt in Ihrem Garten und für viele Probleme die Lösung bietet, wie z.B. überschwemmung, extremer Niederschlag, geringe Drainage und Bodenerosion.

Extreme Wassermengen in Landschaft und Garten könnten Ihre Bepflanzung beschädigen oder sogar total vernichten. Das ist der Grund warum ein Wasserdrainage System so wichtig ist um zu verhindern das dies auftritt.

Also, denken Sie immer an die Wasserverteilung auf Ihrem Gelände.

REFO CLICK 20 C

Vertical and Horizontal Drainage



REFO CLICK 23 C

Vertical and Horizontal Drainage

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 20 C USA cu

REFO CLICK 20 C

0,79 in	20 mm
Polyethylene foam, regenerated	Polyethylene foam, regenerated
Plates	Plates
38,58 x 38,58 in	cm 98 x 98
1,20 yd ²	1 sqm
120 Kg/m ³	120 Kg/m ³
Vertical and Horizontal	Vertical and Horizontal
58%	58%
0,39%	0,39%
0,32 in	8,1 mm
> 118,11 in/h	> 3000 mm/h
0,354 l/(m*s)	0,354 l/(m*s)
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 23 USA cu

REFO CLICK 23 C

0,91 in	23 mm
Polyethylene foam regenerated	Polyethylene foam regenerated
Plates	Plates
38,58 x 38,58 in	cm 98 x 98
1,20 yd ²	1 sqm
120 Kg/m ³	120 Kg/m ³
Vertical and Horizontal	Vertical and Horizontal
64 %	64 %
0,36 in	9,1 mm
> 118,11 in/h	> 3000 mm/h
0,627 l/(m*s)	0,627 l/(m*s)
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces

REFO CLICK 50

Vertical and Horizontal Drainage



COLORS



TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 50 USA cu	REFO CLICK 50
1,97 in (shock pad + synthetic grass)	50 mm (shock pad + synthetic grass)
Polyethylene foam, regenerated, grooved and drilled coupled with synthetic grass	Polyethylene foam, regenerated, grooved and drilled coupled with synthetic grass
Plates	Plates
38,18 x 38,18 in	cm 97 x 97
1,195 yd2	0,94 m2
120 Kg/m3	120 Kg/m3
Vertical and Horizontal	Vertical and Horizontal
0,453 l/(m*s)	0,453 l/(m*s)
Silica sand, grade 0,020-0,039 in, min. 80% of cylindrical shape	Silica sand, grade 0.5-1.0 mm, min. 80% of cylindrical shape
Certification report: 13/17	Certification report: 13/17
65% - Test report LSIT.12-0577 EN 1177 (2008)	65% - Test report LSIT.12-0577 EN 1177 (2008)
0,35 in	9 mm
> 7,09 in/h	> 180 mm/h
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces
EN 1177:2018 1,30 mt	EN 1177:2018 1,30 mt

REFO CLICK

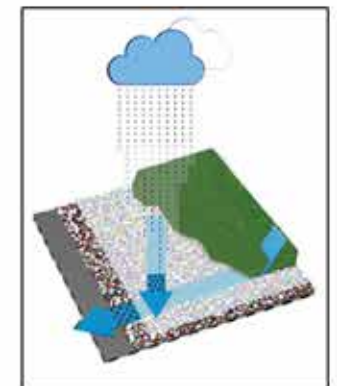
High Permeability
> 3000 mm/h



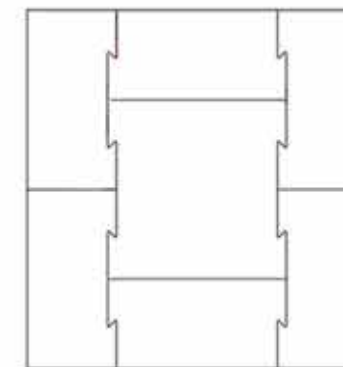
Safety Mat



Excellent Hydraulic Capacity



Composition of the Area



Easy and fast installation thanks to click system



Material used: REFOCLICK 50
Type of material: Special plate in agglomerate PE foam, grooved and drilled coupled with artificial Grass
Thickness shock pad: 23 mm
Thickness artificial Grass: 27 mm
Measures plates: cm 97 x 97
Profit each plates: 0,94 sqm
Total sqm use: 174 sqm



Eco Hotel Bonapace in Torbole sul Garda (TN)
1° Hotel Eco Friendly in Italia

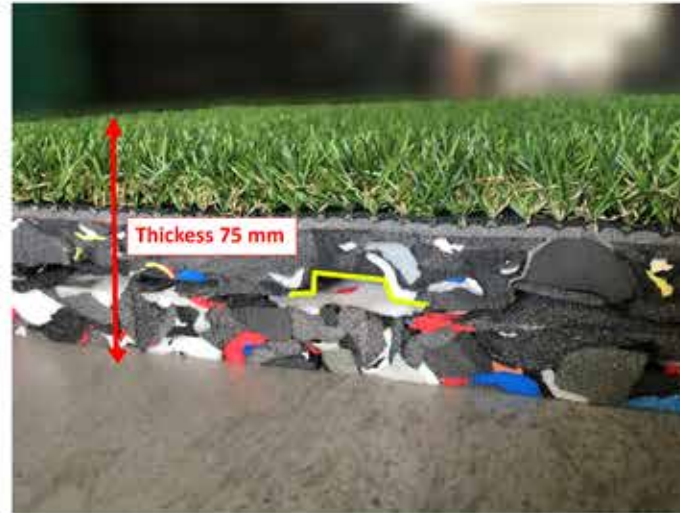


REFO CLICK 75

Vertical and Horizontal Drainage

REFO PLAY 25 + REFO CLICK 50

HIC HIC EN 1177:2018 2.33 mt

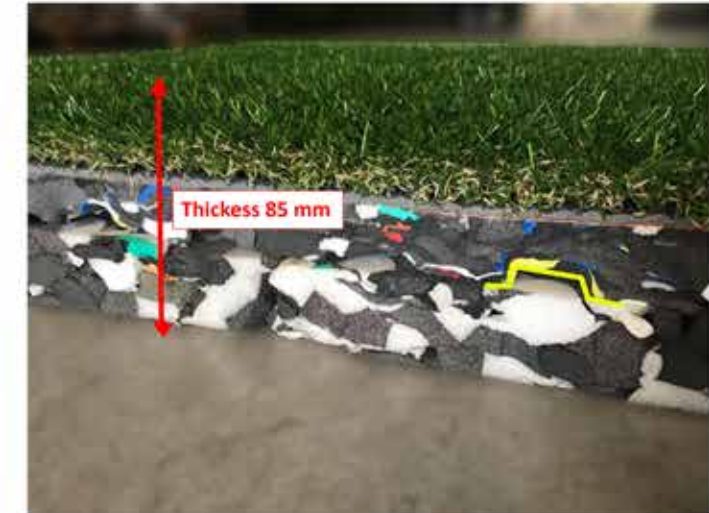


REFO CLICK 85

Vertical and Horizontal Drainage

REFO PLAY 35 + REFO CLICK 50

HIC HIC EN 1177:2018 2.45 mt



TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques

REFO PLAY 25 USA cu

REFO PLAY 25

76,62 x 39,76 in	cm 225 x 90
2,09 yd2	2,025 sqm
80 Kg/m3	80 Kg/m3
Vertical	Vertical

≥ 118 in/h ≥ 3000 mm/h



REFO CLICK 50 USA cu

REFO CLICK 50

1,97 in (shock pad + synthetic grass)	50 mm (shock pad + synthetic grass)
Polyethylene foam, regenerated, grooved and drilled coupled with synthetic grass	Polyethylene foam, regenerated, grooved and drilled coupled with synthetic grass
Plates	Plates
38,18 x 38,18 in	cm 97 x 97
1,195 yd2	0,94 m2
120 Kg/m3	120 Kg/m3
Vertical and Horizontal	Vertical and Horizontal
0,453 l/(m*s)	0,453 l/(m*s)
Silica sand, grade 0,020-0,039 in, min. 80% of cylindrical shape	Silica sand, grade 0.5-1.0 mm, min. 80% of cylindrical shape
Certification report: 13/17	Certification report: 13/17
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0,35 in	9 mm
> 7,09 in/h	> 180 mm/h
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces

TECHNICAL SPECIFICATIONS

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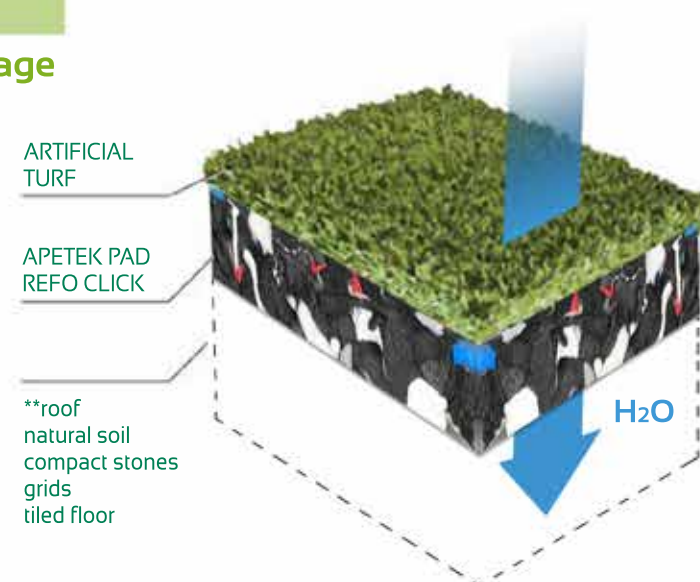
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Graphic section of REFO CLICK

Vertical Drainage



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SOLUTION FOR PERMEABLE TERRAINS or WHERE DRAINAGE SYSTEM IS ALREADY PRESENT

Water drainage in your landscaping is just as important as landscape irrigation.

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Vertical Drainage

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Il drenaggio dell'acqua è molto importante per le case residenziali perché beneficerà immensamente il tuo giardino risolvendo molti problemi comuni di acqua che sono causati da : inondazioni, precipitazioni eccessive, scarso drenaggio ed erosione del suolo. L'eccesso di acqua nei giardini e nei prati sintetici può causare malattie delle piante e persino generare una moria di fiori costosi e alberi che hanno impiegato anni per poter crescere rigogliosi ed in perfetto equilibrio con il micro ecosistema del vostro giardino.

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SOLUCIÓN PARA TERRENOS PERMEABLES O DONDE EL SISTEMA DE DRENAJE YA ESTÁ PRESENTE

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RÉOLUTION DE SOLS PERMÉABLES OU DONT LE DESSIN EST SUFFISANT

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DIE LÖSUNG FÜR DURCHLÄSSIGE FLÄCHEN ODER AUF STELLEN WO SCHON EINE DRAINAGE VORHANDEN IST

WasserDrainage in Ihren Garten und Landschaftsgestaltung ist genau so wichtig wie Irrigation. Manchmal wird die Drainage übersehen und nicht impliziert. Wasser Drainage wird normalerweise durch Rohre unter der Oberfläche Ihres Gartens geleitet. Wenn man eine neues Haus baut oder man hat schon Pflützen mit Wasser rundum im Gelände dann ist es wichtig ein gutes Wasserdrainage System ein zu bauen. Wasserdrainage ist sehr wichtig bei Ihrem Haus weil es extra Leistungen bringt in Ihrem Garten und für viele Probleme die Lösung bietet, wie z.B. überschwemmung, extremer Niederschlag, geringe Drainage und Bodenerosion.

Extreme Wassermengen in Landschaft und Garten könnten Ihre Bepflanzung beschädigen oder sogar total vernichten.

Das ist der Grund warum ein Wasserdrainage System so wichtig ist um zu verhindern das dies auftritt.

Also, denken Sie immer an die Wasserverteilung auf Ihrem Gelände.

REFO CLICK 10 ND

Vertical Drainage



REFO CLICK 15

Vertical Drainage

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 10 USA cu

0,39 in

Polyethylene foam,
regenerated Plates, without
holes

Plates

38,58 x 38,58 in

1,20 yd2

100 Kg/m3

Vertical, from the perimeter of
the plates, from puzzle form

46%

0,39%

0,25 in

> 7,09 in/h

on the surface

MUGA, Playgrounds,
Roof Gardens, Patio, Gardens,
Terraces

REFO CLICK 10 ND

10 mm

Polyethylene foam,
regenerated Plates, without
holes

Plates

cm 98 x 98

1 sqm

100 Kg/m3

Vertical, from the perimeter of
the plates, from puzzle form

46%

0,39%

6,3 mm

> 180 mm/h

on the surface

MUGA, Playgrounds,
Roof Gardens, Patio, Gardens,
Terraces

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 15 USA cu

0,59 in

Polyethylene foam,
regenerated

Plates

38,58 x 38,58 in

1,20 yd2

80 Kg/m3

Vertical

45%

0,28 in

> 118,11 in/h

0,354 l/(m*s)

MUGA, Playgrounds,
Roof Gardens, Patio, Gardens,
Terraces

REFO CLICK 15

15 mm

Polyethylene foam,
regenerated

Plates

cm 98 x 98

1 sqm

80 Kg/m3

Vertical

45%

7,2 mm

> 3000 mm/h

0,354 l/(m*s)

MUGA, Playgrounds,
Roof Gardens, Patio, Gardens,
Terraces

REFO CLICK 25

Vertical Drainage



REFO CLICK 35

Vertical Drainage

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 25 USA cu	REFO CLICK 25
0,98 in	25 mm
plate with interlocking systems	plate with interlocking systems
38,58 x 38,58 in	cm 98 x 98
1,20 yd2	1 sqm
80 Kg/m3	80 Kg/m3
Vertical	Vertical
> 174,09 in/h	> 4422 mm/h
25 Kg/m2	25 Kg/m2
On Request	On Request
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces
EN 1177:2018 1,20 mt*	EN 1177:2018 1,20 mt*

* Tested with 24 mm pile height grass + 25 kg/sqm sand infill

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 35 USA cu	REFO CLICK 35
1,38 in	35 mm
plate with interlocking systems	plate with interlocking systems
38,58 x 38,58 in	cm 98 x 98
1,20 yd2	1 sqm
80 Kg/m3	80 Kg/m3
Vertical	Vertical
> 174,09 in/h	> 4422 mm/h
25 Kg/m2	25 Kg/m2
On Request	On Request
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces
EN 1177:2018 1,40 mt*	EN 1177:2018 1,40 mt*

* Tested with 24 mm pile height grass + 25 kg/sqm sand infill

REFO CLICK 45

Vertical Drainage



REFO CLICK 55

Vertical Drainage

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



REFO CLICK 45 USA cu	REFO CLICK 45
1,77 in	45 mm
plate with interlocking systems	plate with interlocking systems
38,58 x 38,58 in	cm 98 x 98
1,20 yd2	1 sqm
80 Kg/m3	80 Kg/m3
Vertical	Vertical
> 174,09 in/h	> 4422 mm/h
25 Kg/m2	25 Kg/m2
On Request	On Request
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces
EN 1177:2018 2,00 mt*	EN 1177:2018 2,00 mt*

* Tested with 24 mm pile height grass + 25 kg/sqm sand infill

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques

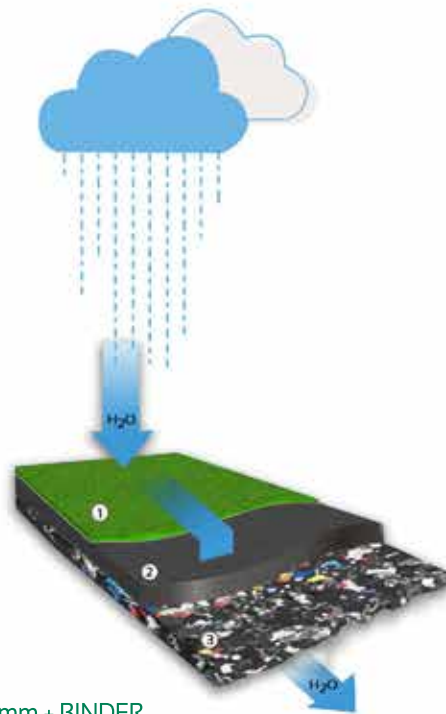


REFO CLICK 55 USA cu	REFO CLICK 55
2,17 in	55 mm
plate with interlocking systems	plate with interlocking systems
38,58 x 38,58 in	cm 98 x 98
1,20 yd2	1 sqm
80 Kg/m3	80 Kg/m3
Vertical	Vertical
> 174,09 in/h	> 4422 mm/h
25 Kg/m2	25 Kg/m2
On Request	On Request
MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces	MUGA, Playgrounds, Roof Gardens, Patio, Gardens, Terraces
EN 1177:2018 2,10 mt*	EN 1177:2018 2,10 mt*

* Tested with 24 mm pile height grass + 25 kg/sqm sand infill

SPECIAL APPLICATION

Vertical and Horizontal Drainage



- 1 COLORED EPDM + BINDER
- 2 BLACK LAY IN RUBBER 3-5 mm + BINDER
- 3 REFO SPORT 23 C

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques



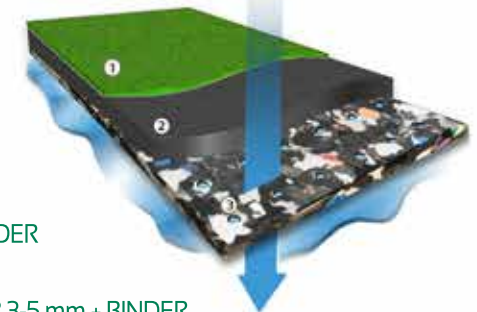
REFO SPORT 23 C USA cu REFO SPORT 23 C S

0,91 in	23 mm
Polyethylene foam regenerated	Polyethylene foam regenerated
Plates	Plates
35,43 x 88,58 in	cm 90 x 225
2,42 yd2	2,025 sqm
120 Kg/m3	120 Kg/m3
Vertical and Horizontal	Vertical and Horizontal
64 %	64 %
0,36 in	9,1 mm
> 118,11 in/h	> 3000 mm/h
0,627 l\ (m*s)	0,627 l\ (m*s)
Rugby, Football, Roof Gardens, Playgrounds FIFA, GAA, American and Australian Football, IRB	Rugby, Football, Roof Gardens, Playgrounds FIFA, GAA, American and Australian Football, IRB
1,20 mt*	1,20 mt*

* This value is only for the pad.
Final value of the system depends on thickness of RUBBER and EPDM

SPECIAL APPLICATION

Vertical Drainage



- 1 COLORED EPDM + BINDER
- 2 BLACK LAY IN RUBBER 3-5 mm + BINDER
- 3 REFO PLAY 25

TECHNICAL SPECIFICATIONS

caratteristiche tecniche
características técnicas
caractéristiques techniques

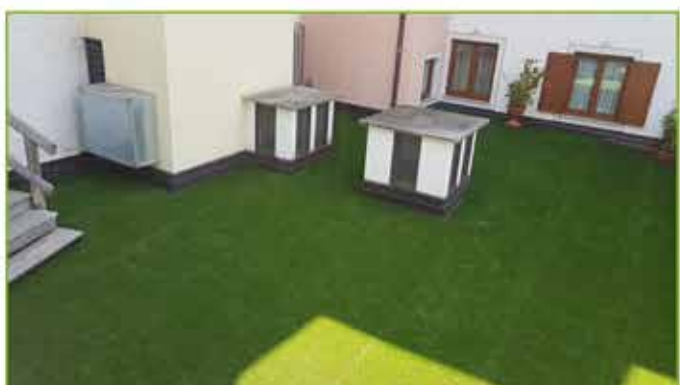


REFO PLAY 25 USA cu REFO PLAY 25

0,98 in	25mm
plate with interlocking systems	plate with interlocking systems
38,58 x 38,58 in	cm 98 x 98
1,20 yd2	1 sqm
80 Kg/m3	80 Kg/m3
Vertical	Vertical
> 174,09 in/h	> 4422 mm/h
90,16 x 3,74 in	229 x 95 cm
MUGA, Playgrounds, Multi Sport Areas	MUGA, Playgrounds, Multi Sport Areas
1,20 mt*	1,20 mt*

* This value is only for the pad.
Final value of the system depends on thickness of RUBBER and EPDM

REFERENCES



CERTIFICATION REFO CLICK 50



TEST REPORT

HIC TEST EN 1177:2018 - Method 1

Impact attenuating playground surfacing

Methods of test for determination of critical fall height

N° 222

Date 12/09/2018

APPLICANT INFORMATION

Company: Apetek s.r.l.

Address: Corso Italia 19, 24040 Osio Sopra (BG)

Sampling done by: Apetek s.r.l.

Sample arrived on: 30/08/2018

Test date: 12/09/2018

Place of test execution: ☒ laboratory

☐ loco Address: N.A.

Geographic coordinates WGS84: N.A.

Conditions: temperature: 25°C
humidity: 45%

M3_HIC_RDP

Ed 02 Rev.00



TEST REPORT

HIC TEST EN 1177:2018 - Method 1
Impact attenuating playground surfacing
Methods of test for determination of critical fall height

N° 200

Emesso il 06/08/2018

APPLICANT INFORMATION

Company: Apetek s.r.l.

Address: Corso Italia 19, 24040 Osio Sopra (BG)

Sampling done by: Apetek s.r.l.

Sample arrived on: 20/07/2018

Test date: 06/08/2018

Place of test execution: ☒ laboratory

☐ loco Address: N.A.

Geographic coordinates WGS84:N.A.

Conditions: temperature: 26°C
humidity:40%

M3_HIC_RDP

Ed.02 Rev.00



TEST REPORT

HIC TEST EN 1177:2018 - Method 1
Impact attenuating playground surfacing
Methods of test for determination of critical fall height

N° 188

Date 06/08/2018

APPLICANT INFORMATION

Company: Apetek s.r.l.

Address: Corso Italia 19, 24040 Osio Sopra (BG)

Sampling done by: Apetek s.r.l.

Sample arrived on: 20/07/2018

Test date: 03/08/2018

Place of test execution: ☒ laboratory

☐ loco Address: N.A.

Geographic coordinates WGS84:N.A.

Conditions: temperature: 26°C
humidity:40%

M3_HIC_RDP

Ed.02 Rev.00

NOTE / Nota / Remarque

Iconography

		Thickness	Spessore	Espesor	Epaisseur	Dicke
		Type of material	Tipo di materiale	Tipo de material	Type de matériel	Art der Ausrüstung
		Material supplied	Materiale fornito	Material proporcionado	Matériel fourni en	Materialien zur Verfügung gestellt
		Measures plates/rolls	Misura lastre/rotoli	Medidas placa/rollo	Mesures plaques/rouleaux	Messplatten / Rollen
		Profit plates/rolls	Utile lastra/rotoli	Util placa/rollo	Profit feuilles/rouleaux	Profitblätter / Rollen
		Density m3	Densità	Densidad	Densité	Dichte
		Type of drainage	Tipo di drenaggio	Tipo de drenaje	Type de drainage	Art der Entwässerung
		Shock absorption	Assorbimento allo shock	Absorción impacto	Absorption au choc	Schockabsorption
		Dimensional stability	Stabilità dimensionale	Estabilidad dimensional	Stabilité dimensionnelle	Dimensionsstabilität
		Permeability	Perm. dello shock pad	Perm. del material	Perm. Du choc pad	Perm. Schock-Pad
		Vertical deformation	Deformazione verticale	Deformación vertical	Déformation verticale	Vertikale Verformung
		Hydraulic Capacity	Capacità Idraulica	Capacidad hidráulica	Capacité hydraulique	Hydraulische Kapazität
		Field of application	Campi di applicazione	Campos de aplicación	Applications	Anwendungen
		Certifications	Certificazioni	Certificaciones	Certifications	Zertifizierungen
		Energy Restitution	Energia di restituzione	Retorno de energia	Retour énergie	Energie zurückgeben
		Value HIC	Valore HIC	Valor HIC	Valeur HIC	HIC-Wert
		Measures Angle	Misura angoli	Medidas angulares	Angle de mesure	Misst Winkel
		Infill	Intaso	Relleno	Remplissage	Füllung
		Fire Classification	Certificazione al fuoco	Clasificación al fuego	Classification au feu	Feuerklassifizierung
		Synthetic grass	Erba sintetica	Hierba sintética	Herbe synthétique	Synthetisches gras
						

REO sport
protective sportgrounds

REO play
protective playgrounds

REO target
easy target solutions

REO protect
protective grounds



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