



HENDRIKS  
graszoden group



REPORT GRASS QUALITY

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# 1 The project

**Large sports events are televised worldwide and millions of viewers see the grass pitches on which new champions are born.**

Growing the right grass, tailored to the various climates and circumstances, is far from easy. It requires comprehensive knowledge of the processes that occur in the way we cultivate the grass. It is essential, therefore, that the right machinery is used to ensure that the grass is able to withstand these processes during harvesting and installation in order that the desired result is obtained.



Hendriks Graszoden  
 Herr J. Hendriks  
 Caluna 17  
 NL-6093 PG Heythuysen  
 Niederlande

Osnabrück, 25.03.2020

**BV Hendriks Graszoden, KE 10**  
**Untersuchungsergebnisse**  
**Probeneingang vom 10.03.2020**

Sehr geehrter Herr Hendriks,  
 sehr geehrte Damen und Herren,

auf der Grundlage der Fachnormen DIN 18 035 Teil 4 „Sportplätze, Rasenflächen“ Ausgabe 2018 sowie der TL Fertigrasen, Ausgabe 2016 wurden bei dem eingereichten Probenmaterial nachfolgende Eigenschaften festgestellt:

**1. Anzuchtboden, KE 10**

Parameter	Ergebnis	Anforderung DIN 18035-4	Zuordnung TL Fertigrasen	Bewertung
Kornanteil d < 0,025 mm	4,51 Gew.-%	≤ 10 Gew.-%	Kategorie 1 - 2	✓
Kornanteil d < 0,063 mm	8,07 Gew.-%	≤ 18 Gew.-%	Kategorie 1 - 2	✓
Kornanteil d < 0,2 mm	32,5 Gew.-%	22 - 58 Gew.-%	Kategorie 1 - 2	✓
Organische Substanz	1,6 Gew.-%	1,0 – 3,0 Gew.-%	Kategorie 1 - 3	✓
Bodenreaktion pH	6,5	5,5 - 7,0	Kategorie 1 - 2	✓

Für Rückfragen stehen wir Ihnen jederzeit gerne zur Verfügung.

Mit freundlichen Grüßen



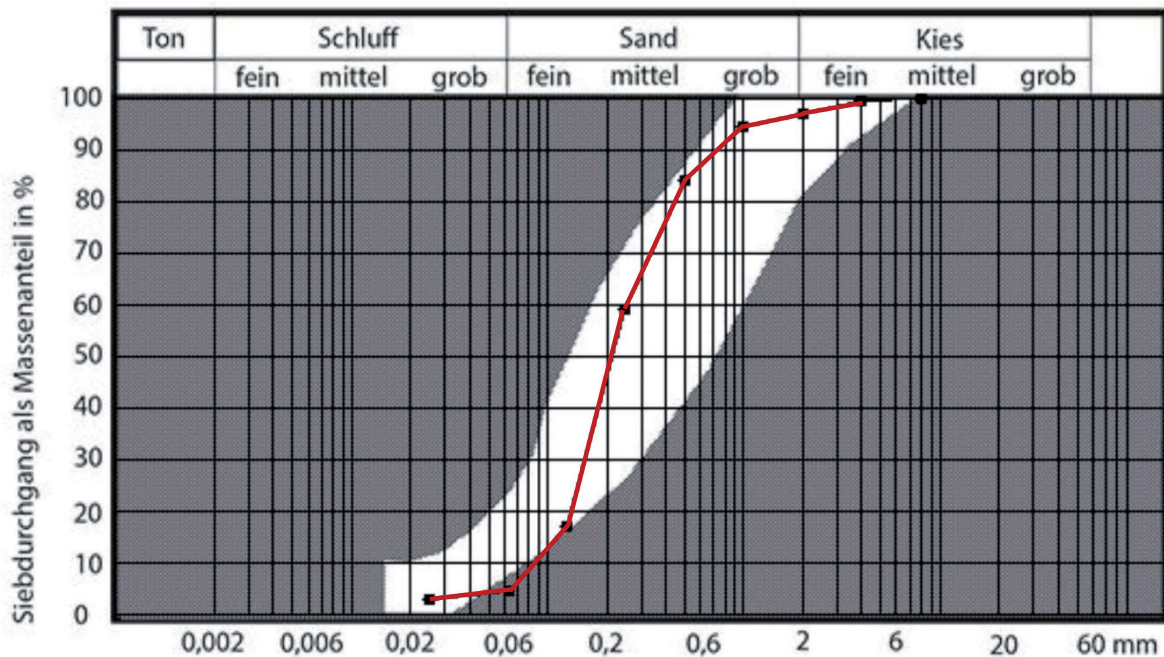
Dipl.-Ing. (FH) O. Schneider  
 Labor Lehmacher | Schneider GmbH & Co. KG



Durch die DAKkS nach DIN EN ISO/IEC 17025 akkreditiertes Prüflabor. Die Akkreditierung gilt für die in der Urkunde aufgeführten Prüfverfahren.

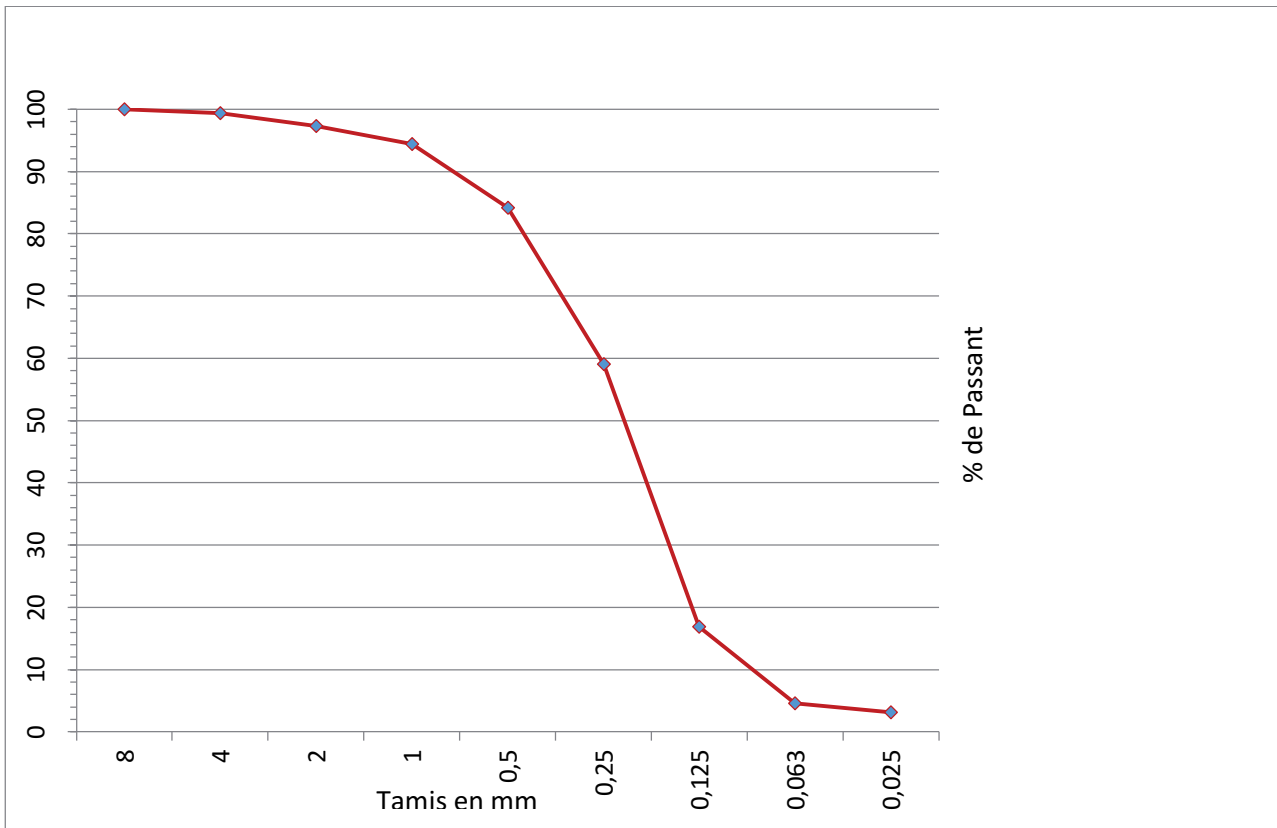


<b>Labor Lehmacher   Schneider</b>		Anlage	
Bauvorhaben : <b>Hendriks Graszoden, Anzuchtboden – KE 10</b>			
Prüfnummer	: 9252	Entnahmestelle	: Materialprobe
Ausgeführt von	: Herr Bennaia	Entnahme durch	: Eingang
Ausgeführt am	: 18.03.2020	Entnahme am	: 11.03.2020
Bodenart	: Anzuchtboden	Entnahmeart	: Schürf
Tiefe	: ...	Kurvennummer	: 1/1
Bestimmung der Korngrößenverteilung - Datenblatt Siebung Rasentragschicht (DIN 18035 Teil 4)			



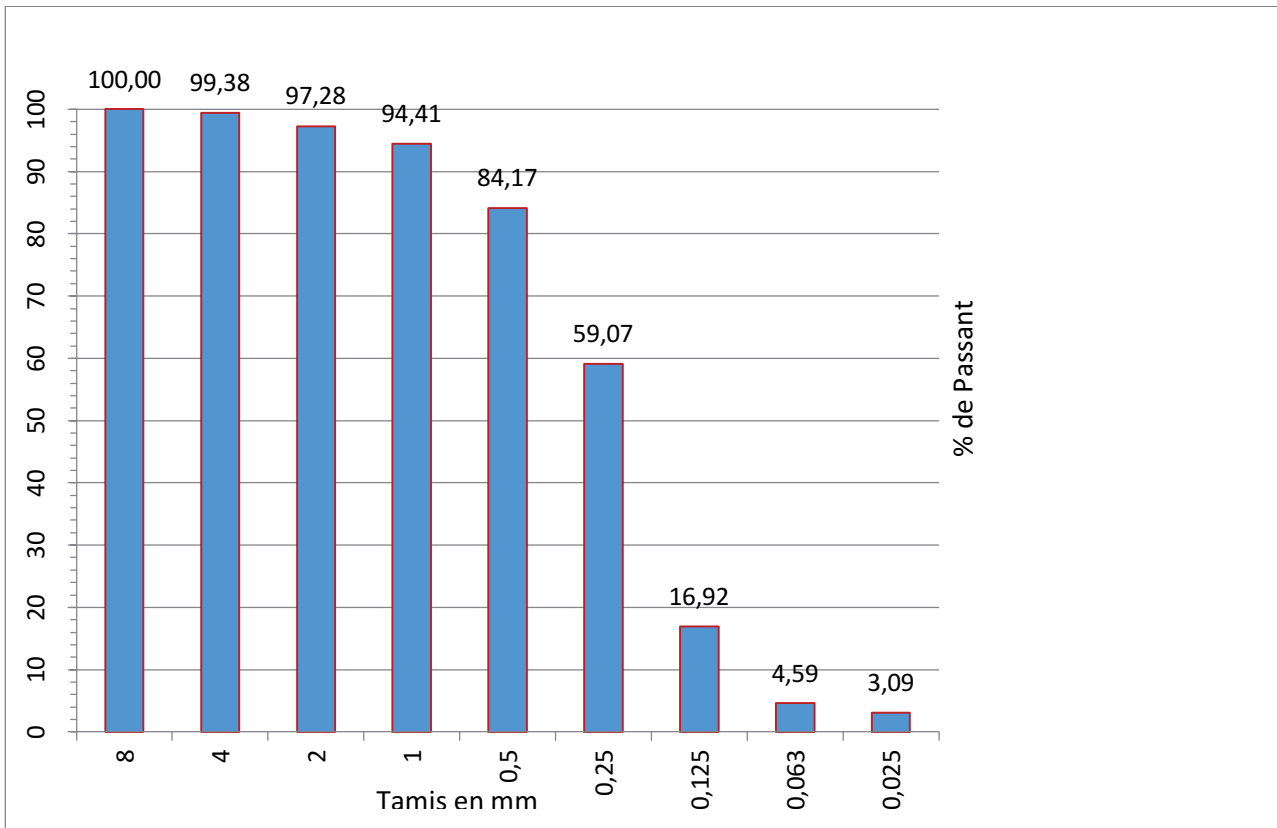
**COURBE GRANULOMETRIQUE DE DEPART**

**Hendriks KE 10**



**COURBE GRANULOMÉTRIQUE DU SOL ANALYSÉ**

**Hendriks KE 10**



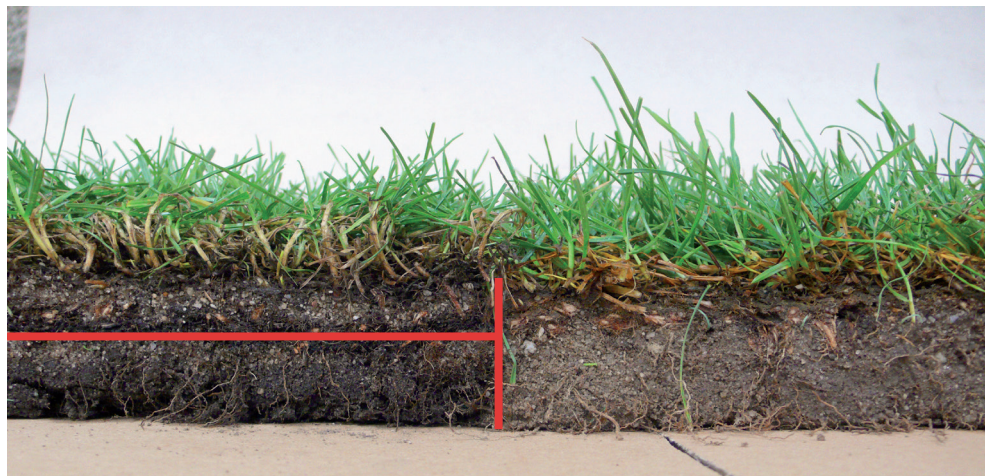
### 3 Recommendation by Hendriks Graszoden

**Grass sports pitches place high demands on the playability. Advance soil investigation and inspection of the top layer is essential to ensure compliance with the criteria of DIN 18035-4 when constructing a grass pitch. The turf laid must have a substructure with the same construction to prevent a disruptive layer.**

Proper distribution of fine, medium-coarse and coarse grain size fraction ensures excellent stiffness, sufficient bearing strength and good water permeability. A balanced mix between small, medium-sized and large pores ensures a regular gas exchange in the soil. The water-holding capacity is determined by the number of small and smallest pores in the soil. The water permeability depends on the number of large pores.

Besides good drainage in the subsoil, the top layer must also have sufficient drainage capacity in order to prevent puddles from forming on the playing surface in the event of heavy rainfall. The texture and structure of the top layer are also decisive for good rooting of the grass. A disruptive layer in the subsoil increases the length of time the water is held, as a result of which the pitch remains (too) wet, which may cause diseases and instability of the turf.

The air pores ensure sufficient oxygen supply and thus stimulate the degradation and conversion of the organic fraction by micro-organisms. Whatever the circumstances, the soil must meet the highest possible requirements for sports surfaces, recreational areas and other grass surfaces.



**Left: Sandwich structure**

- High humus content
- Poor water permeability
- Sensitive to disease

**Right: good homogenous structure**

- + Higher water permeability
- + Better oxygen balance
- + Healthier grass plants





**HENDRIKS**  
sport development

**Hendriks Graszoden**

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