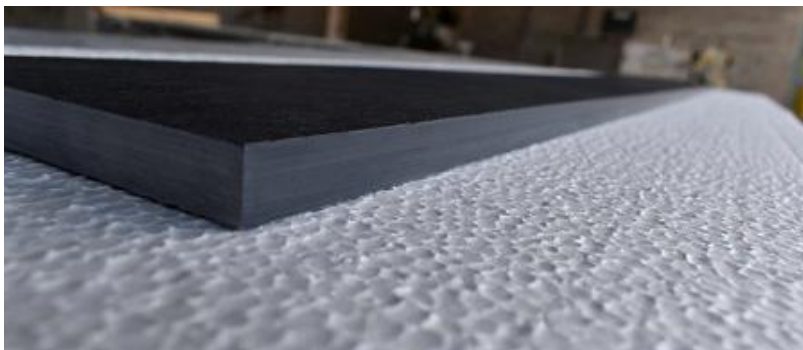


DATABLAD – GRANIT.DK

SÅLBÆNKE – RIO BRASIL – NATUR SKIFER

DATO 18-5-2022 / Ref. 1216224

Anvendes i facadekonstruktion under vinduer.



CE MÆRKNING – P119937 – TEST UDFØRT 2022

**EPD - Environmental Product Declaration (miljøvaredeklaration).
(Forventes klar 2023)**

OPRINDELSESLAND – BRASILIEN

PRODUKTIONSLAND (FORARBEJDNINGSLAND) – BRASILIEN

PRODUKTBESKRIVELSE:

NATURSKIFER / OVERFLADE SLEBET / BUND KALIBRERET / TOLERANCE TYKKELSE +-1MM
KANTER SAVET UDEN FAS / PAKNING I 50 STK'S KASSER

STØRELSER PÅ LAGER:

1210X130X15MM, 1330X130X15MM, 1550X130X15MM, 1800X130X15MM, 2000X130X15MM

1210X150X15MM, 1330X150X15MM, 1450X150X15MM, 1550X150X15MM, 1800X150X15MM
2000X150X15MM, 2200X150X15MM

1210X200X15MM, 1550X200X15MM, 2000X200X15MM

1800X250X15MM, 1800x350x15mm

Drift, vedligehold og holdbarhed:

Rio Brasil Skifer er et 100 % naturprodukt kræver materialet ikke nogen form for vedligeholdelse. Dog kan levetiden forlænges ved løbende evt. imprægnering, jævnlig rengøring eller mætning af natursten med alm. skiferolie.

Levetid:

Forventet levetid på skifer sålbænke +100 år

Tolerancer

Standard størrelser + - 1mm



GRANIT.DK APS / CVR-36472618
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Dossier P223443 - Document DE/10 - Page 1/8

TEST REPORT

Requester :

Date and command reference : 1216224 of may,18 2022

Subject : Test following the standard NF EN 1341
(Slabs of natural stone for external paving)

Reference documents :

- Standard NF EN 1341 (February 2013)
- Standard NF EN 12371 (May 2010)
- Standard NF EN 12372 (March 2022)

Samples identification: Product tested : Quarry Pitangui, Slate schist commercial name Black Pitangui and Blackberry AR013P1
LNE references : LNE2022021858

1. SAMPLES DESCRIPTION

30 prisms about 50*50*300 mm for Flexural tests
8 plates 150*100*10 mm for Slip/Skid tests
8 plates about 100*70*10 mm for Abrasion resistance tests

Reception date at LNE: November 03, 2022

| Applicant reference | LNE references | Realized Tests | Standards |
|--|----------------|--|--------------------------------|
| Black Pitangui and Blackberry (AR013P1) | LNE2022021858 | Flexural strength (minimum value expected) | NF EN 1341 §4.4 NF EN 12372 |
| | LNE2022021858 | Flexural strength (initial) | NF EN 1341 §4.4 NF EN 12371 |
| | LNE2022021858 | Freeze-thaw resistance – Flexural strength (after freeze-thaw) | NF EN 1341 §4.4 NF EN 12371 |
| | LNE2022021858 | Abrasion resistance | NF EN 1341 §4.5 EN 14157 |
| | LNE2022021858 | Slip resistance | NF EN 1341 §4.6 NF EN 13373 |

2. CONDITIONS FOR PERFORMING TESTS

The tests were performed between 12nd of November 2022 and 09th of march 2023 in accordance with the NF EN 1341 standards.

3. RESULTS

The results of the measurements are shown in the tables on the following pages.

Report to be followed on next page

Product tested : **Black Pitangui and Blackberry**
(AR013P1)

4. FLEXURAL STRENGTH

4.1.1 Lower expected value Flexural tests results NF EN 1341 §4.4 & NF EN 12372 (03/2022)

| Samples references | Thickness adjacent to fracture plane (mm) | Width adjacent to fracture plane (mm) | Distance between supports (mm) | Breaking strength (N) | Flexural resistance (MPa) | Average (MPa) | Standard deviation (MPa) | Lower expected value (MPa) |
|--------------------|---|---------------------------------------|--------------------------------|-----------------------|---------------------------|---------------|--------------------------|----------------------------|
| LNE2022021858-1 | 48,3 | 50,2 | 252 | 22475 | 67,4 | 60,7 | 8,9 | 43,8 |
| LNE2022021858-2 | 51,0 | 58,8 | 253 | 28576 | 70,0 | | | |
| LNE2022021858-3 | 50,2 | 56,9 | 255 | 20419 | 53,5 | | | |
| LNE2022021858-4 | 50,0 | 56,1 | 250 | 24807 | 65,4 | | | |
| LNE2022021858-5 | 50,9 | 53,6 | 268 | 15671 | 43,2 | | | |
| LNE2022021858-6 | 49,8 | 56,2 | 249 | 20406 | 54,7 | | | |
| LNE2022021858-7 | 50,7 | 55,1 | 249 | 25364 | 67,9 | | | |
| LNE2022021858-8 | 50,5 | 52,8 | 253 | 22740 | 65,6 | | | |
| LNE2022021858-9 | 50,2 | 54,6 | 250 | 19071 | 55,6 | | | |
| LNE2022021858-10 | 50,0 | 56,0 | 250 | 22497 | 63,2 | | | |

Comments :

The strength was applied perpendicularly in the planes of anisotropy.

For 9 samples, there is a break along a stratification plane (cleavage), splitting the sample into two different parts over half the sample.

All samples show a fracture more than 15% of the distance from the support rolls.



One sample show a fracture more than 15% of the distance from the support rolls.



Report to be followed on next page

4.1.2 Flexural strength (initial value before cycles freeze/thaw)
 NF EN 1341 §4.4 & NF EN 12372 (03/2022)

| Samples references | Thickness adjacent to fracture plane (mm) | Width adjacent to fracture plane (mm) | Distance between supports (mm) | Breaking strength (N) | Flexural resistance (MPa) | Average (MPa) | Standard deviation (MPa) |
|--------------------|---|---------------------------------------|--------------------------------|-----------------------|---------------------------|---------------|--------------------------|
| LNE2022021857-11 | 50,5 | 50,8 | 250 | 20709 | 59,8 | 53,7 | 10,3 |
| LNE2022021857-12 | 50,1 | 50,6 | 248 | 19156 | 56,1 | | |
| LNE2022021857-13 | 50,3 | 50,8 | 251 | 18312 | 53,5 | | |
| LNE2022021857-14 | 48,0 | 49,8 | 245 | 17209 | 55,2 | | |
| LNE2022021857-15 | 52,0 | 50,1 | 262 | 12584 | 36,4 | | |
| LNE2022021857-16 | 52,0 | 50,6 | 261 | 17791 | 50,9 | | |
| LNE2022021857-17 | 52,6 | 50,4 | 264 | 15696 | 44,5 | | |
| LNE2022021857-18 | 49,7 | 50,4 | 246 | 23339 | 69,1 | | |
| LNE2022021857-19 | 49,2 | 50,5 | 243 | 22524 | 67,2 | | |
| LNE2022021857-20 | 49,8 | 51,1 | 256 | 14585 | 44,2 | | |

Comments :

The strength was applied perpendicularly in the planes of anisotropy.
 For 10 samples, there is a break along a stratification plane (cleavage), splitting the sample into two different parts over half the sample.
 All samples show a fracture more than 15% of the distance from the support rolls.



Report to be followed on next page

4.1.3 Flexural strength (initial value after 56 cycles freeze/thaw)
 NF EN 1341 §4.4 & NF EN 12372 (03/2022)

| Samples references | Thickness adjacent to fracture plane (mm) | Width adjacent to fracture plane (mm) | Distance between supports (mm) | Breaking strength (N) | Flexural resistance (MPa) | Average (MPa) | Standard deviation (MPa) |
|--------------------|---|---------------------------------------|--------------------------------|-----------------------|---------------------------|---------------|--------------------------|
| LNE2022021858-21 | 48,6 | 50,5 | 256,2 | 6595 | 21,2 | 32,2 | 12,3 |
| LNE2022021858-22 | 51,6 | 50,8 | 256,4 | 5294 | 15,1 | | |
| LNE2022021858-23 | 48,9 | 50,9 | 245,9 | 18441 | 56,1 | | |
| LNE2022021858-24 | 53,6 | 51,3 | 268,0 | 10159 | 27,7 | | |
| LNE2022021858-25 | 49,9 | 50,2 | 250,4 | 15943 | 47,8 | | |
| LNE2022021858-26 | 53,1 | 51,3 | 264,3 | 13765 | 37,7 | | |
| LNE2022021858-27 | 51,4 | 50,4 | 255,4 | 10468 | 30,2 | | |
| LNE2022021858-28 | 56,6 | 50,3 | 280,7 | 9220 | 24,1 | | |
| LNE2022021858-29 | 53,9 | 50,2 | 270,9 | 12333 | 34,3 | | |
| LNE2022021858-30 | 55,1 | 50,6 | 281,1 | 10088 | 27,7 | | |

Comments :

After the cycles freeze and thaw, the strength was applied perpendicularly in the planes of anisotropy.

For 9 samples, there is a break along a stratification plane (cleavage), splitting the sample into two different parts over half the sample.

All samples show a fracture more than 15% of the distance from the support rolls.



For 1 sample with 2 fractures along diverse layering planes on half of the sample. All the specimens, after freeze-thaw test show an incipient fracture of a layering plane (cleavage).



Report to be followed on next page

5 ABRASION RESISTANCE

NF EN 1341 §4.5 & NF EN 14157 (10/2017)

| Samples references | Length of the corrected print (mm) |
|---------------------------|------------------------------------|
| LNE2022021858-1 | 26,9 |
| LNE2022021858-2 | 26,9 |
| LNE2022021858-3 | 26,9 |
| LNE2022021858-4 | 25,9 |
| LNE2022021858-5 | 25,9 |
| LNE2022021858-6 | 24,9 |
| Average | 26,2 |
| Standard deviation | 0,8 |

6 SLIP AND SKID RESISTANCE

NF EN 1341 § 4.6 & NF EN 14231 (12-2003)

| Samples references | Requirement | Slip Sense 1 | Sense 2 after 180°rotation | USRV |
|--------------------|--------------|---------------|----------------------------|-----------|
| | | WET Condition | | |
| LNE2022021858-1 | USRV ≥ 35 | 56 | 57 | 56 |
| LNE2022021858-2 | | 55 | 56 | |
| LNE2022021858-3 | | 57 | 58 | |
| LNE2022021858-4 | | 56 | 56 | |
| LNE2022021858-5 | | 57 | 56 | |
| LNE2022021858-6 | | 57 | 56 | |

7 APPARENT DENSITY AND OPEN POROSITY

NF EN 1341 § 4.9 & NF EN 1936 (05-2007)

| Samples references | Aparant Density (Kg/m3) | Porosity (%) |
|---------------------------|-------------------------|--------------|
| LNE2022021858-1 | 2617 | 0,8 |
| LNE2022021858-2 | 2712 | 0,7 |
| LNE2022021858-3 | 2716 | 0,7 |
| LNE2022021858-4 | 2704 | 0,8 |
| LNE2022021858-5 | 2715 | 0,7 |
| LNE2022021858-6 | 2710 | 0,8 |
| Average | 2696 | 0,7 |
| Standard deviation | 39 | 0,0 |

Report to be followed on next page

Trappes, march 24, 2023



Test Officer

Urbain CAUCHY

The results mentioned are applicable only to samples, products or materials submitted to the LNE and as defined in this document.