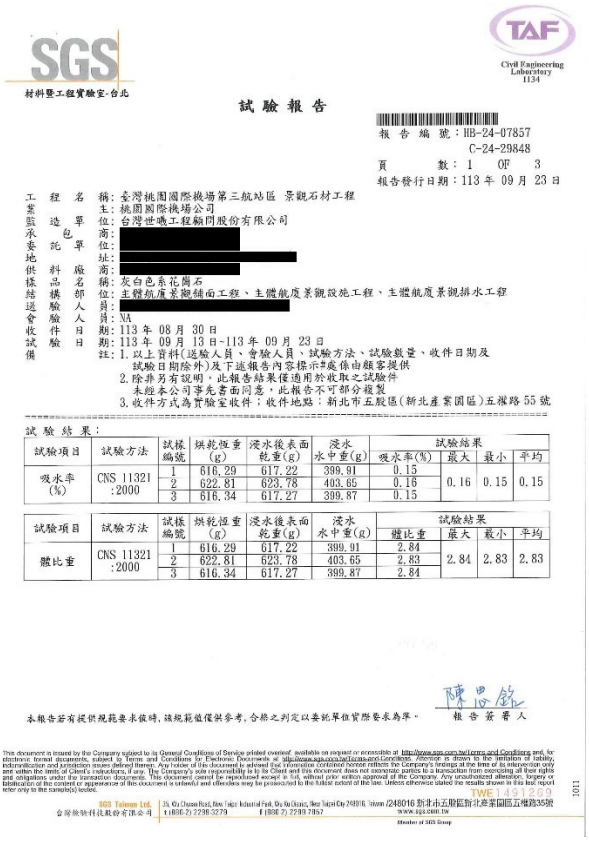


材料暨工程實驗室-台北

試 驗 報 告

報 告 編 號：HB-24-07857
C-24-29848
頁　　數：1　OF　3
報告發行日期：113 年 09 月 23 日

工 程 名 稱：臺灣桃園國際機場第三航站區 景觀石材工程
業 主：桃園國際機場公司
監 造 單 位：台灣世曦工程顧問股份有限公司
承 包 商：[redacted]
委 託 單 位：[redacted]
地 址：[redacted]
供 料 廠 商：[redacted]
樣 品 名 稱：灰白色系花崗石
結 構 部 位：主體航廈景觀鋪面工程、主體航廈景觀設施工程、主體航廈景觀排水工程
送 驗 人 員：[redacted]
會 驗 人 員：NA
收 件 日 期：113 年 08 月 30 日
試 驗 日 期：113 年 09 月 13 日-113 年 09 月 23 日
備　　註：1. 以上資料(送驗人員、會驗人員、試驗方法、試驗數量、收件日期及試驗日期除外)及下述報告內容係示#廠僅由顧客提供
2. 除非另有說明，此報告結果僅適用於收取之試驗件
未經本公司事先書面同意，此報告不可部分複製
3. 收件方式為實驗室收件；收件地點：新北市五股區(新北產業園區)五權路 55 號

試 驗 結 果：

試驗項目	試驗方法	試樣編號	烘乾恆重(g)	浸水後表面乾重(g)	浸水水中重(g)	試驗結果 吸水率(%)	最大	最小	平均
吸水率(%)	CNS 11321:2000	1	616.29	617.22	399.91	0.15	0.16	0.15	0.15
		2	622.81	623.78	403.65	0.16			
		3	616.34	617.27	399.87	0.15			

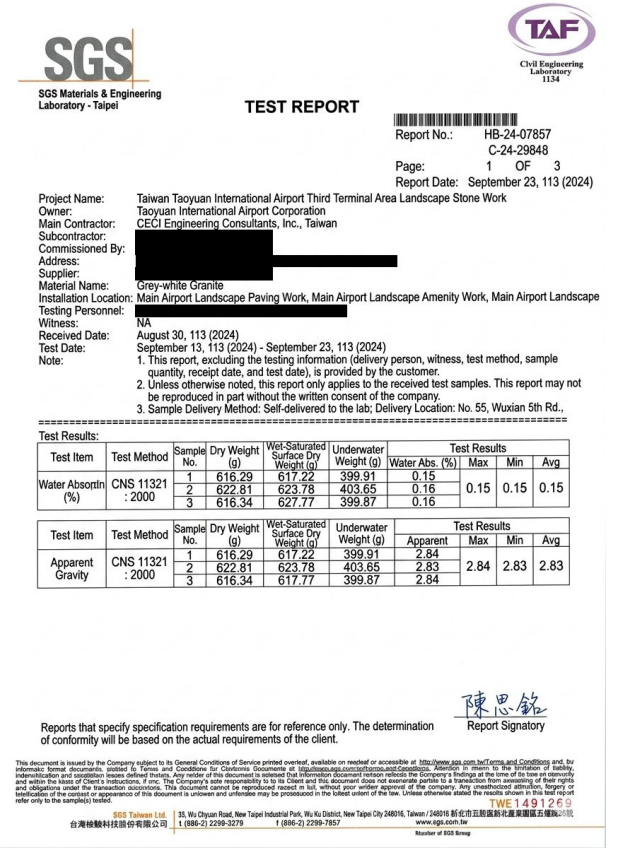
試驗項目	試驗方法	試樣編號	烘乾恆重(g)	浸水後表面乾重(g)	浸水水中重(g)	試驗結果 體比重	最大	最小	平均
體比重	CNS 11321:2000	1	616.29	617.22	399.91	2.84	2.84	2.83	2.83
		2	622.81	623.78	403.65	2.83			
		3	616.34	617.27	399.87	2.84			

本報告若有提供規範要求依時，該規範值僅供參考，合格之判定以委託單位實際要求為準。

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SGS Materials & Engineering Laboratory - Taipei

TEST REPORT

Report No.: HB-24-07857
C-24-29848
Page: 1 OF 3
Report Date: September 23, 113 (2024)

Project Name: Taiwan Taoyuan International Airport Third Terminal Area Landscape Stone Work
Owner: Taoyuan International Airport Corporation
Main Contractor: CECI Engineering Consultants, Inc., Taiwan
Subcontractor: [redacted]
Commissioned By: [redacted]
Address: [redacted]
Supplier: [redacted]
Material Name: Grey-white Granite
Installation Location: Main Airport Landscape Paving Work, Main Airport Landscape Amenity Work, Main Airport Landscape
Testing Personnel: [redacted]
Witness: NA
Received Date: August 30, 113 (2024)
Test Date: September 13, 113 (2024) - September 23, 113 (2024)
Note:
1. This report, excluding the testing information (delivery person, witness, test method, sample quantity, receipt date, and test date), is provided by the customer.
2. Unless otherwise noted, this report only applies to the received test samples. This report may not be reproduced in part without the written consent of the company.
3. Sample Delivery Method: Self-delivered to the lab; Delivery Location: No. 55, Wuxian 5th Rd.,

Test Results:

Test Item	Test Method	Sample No.	Dry Weight (g)	Wet-Saturated Surface Dry Weight (g)	Underwater Weight (g)	Test Results Water Abs. (%)	Max	Min	Avg
Water Absorption (%)	CNS 11321 : 2000	1	616.29	617.22	399.91	0.15	0.15	0.15	0.15
		2	622.81	623.78	403.65	0.16			
		3	616.34	627.77	399.87	0.16			

Test Item	Test Method	Sample No.	Dry Weight (g)	Wet-Saturated Surface Dry Weight (g)	Underwater Weight (g)	Test Results Apparent	Max	Min	Avg
Apparent Gravity	CNS 11321 : 2000	1	616.29	617.22	399.91	2.84	2.84	2.83	2.83
		2	622.81	623.78	403.65	2.83			
		3	616.34	617.77	399.87	2.84			

Reports that specify specification requirements are for reference only. The determination of conformity will be based on the actual requirements of the client.

Report Signatory

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SGS
材料暨工程實驗室-台北

Civil Engineering Laboratory 1134

試 驗 報 告

報 告 編 號：HB-24-07857
C-24-29848
頁　　數：2 OF 3
報告發行日期：113 年 09 月 23 日

試 驗 結 果：

試驗項目	試驗方法	試樣編號	#養護方式	試樣尺度 長(cm)	寬(cm)	高(cm)	試驗結果 抗壓強度 (kgf/cm²)	平均抗壓強度 (kgf/cm²)
抗壓強度	CNS 11319 :2000	1	乾燥狀態	6.024	6.034	6.096	1716	1535
		2		6.016	6.038	6.062	838	
		3		6.028	6.014	6.076	2001	
		4		6.016	6.048	6.072	1568	
		5		6.012	6.044	6.058	1553	

註：#因顧客未提供石材裂理方向，故無法出具垂直與平行裂理方向之抗壓強度。

試驗項目	試驗方法	試樣編號	#養護方式	試樣尺度 長(cm)	寬(cm)	厚(cm)	試驗結果 彎曲強度 (kgf/cm²)	平均彎曲強度 (kgf/cm²)	標準差
彎曲強度	CNS 13976 :1997	1	乾燥狀態	36.094	4.555	2.833	182	180	4
		2		36.098	4.577	2.830	174		
		3		36.086	4.534	2.829	183		
		4		36.096	4.565	2.827	183		
		5		36.012	4.547	2.840	179		

註：#因客戶未提供石材裂理方向，故無法出具垂直與平行裂理方向之彎曲強度。

試驗項目	試驗方法	試樣編號	#養護方式	試樣尺度 長(cm)	寬(cm)	厚(cm)	試驗結果 破壞模數 (kgf/cm²)	平均破壞模數 (kgf/cm²)
破壞模數	CNS 11322 :2000	1	乾燥狀態	20.028	10.084	5.787	187	183
		2		20.014	10.054	5.759	187	
		3		20.022	10.064	5.735	173	
		4		20.038	10.036	5.753	183	
		5		20.056	10.092	5.764	121	

註：#因客戶未提供石材裂理方向，故無法出具垂直與平行裂理方向之破壞模數。

本報告若有提供規範要求值時，該規範值僅供參考，合格之判定以委託單位實際要求為準。

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Material & Engineering Laboratory-Taipei

Civil Engineering Laboratory 1134

TEST REPORT

Material & Engineering Laboratory-Taipei

REPORT NO.: HB-24-07857 / C-24-29848
PAGE: 2 OF 3
DATE OF REPORT: 2024-09-23

TEST RESULTS:

TEST ITEM	TEST METHOD	SAMPLE NO.	#CURING METHOD	SAMPLE DIMENSIONS Length (cm)	Width (cm)	Height (cm)	TEST RESULT Compressive Strength (kgf/cm²)	Average Compressive Strength (kgf/cm²)
Compressive Strength	CNS 11319 :2000	1	#Curing Dry State	6.024	6.034	6.096	1716	1535
		2		6.016	6.038	6.062	838	
		3		6.028	6.044	6.076	2001	
		4		6.016	6.048	6.072	1568	
		5		6.012	6.044	6.058	1553	

NOTE: #Since the client did not provide stone grain direction, it is not possible to provide compressive strength in directions perpendicular and parallel to the grain.

TEST ITEM	TEST METHOD	SAMPLE NO.	#CURING METHOD	SAMPLE DIMENSIONS L (cm)	寬 (cm)	F (cm)	TEST RESULT Flexural Strength (kgf/cm²)	Average of Rupture (kgf/cm²)	Moduus
Flexural Strength	CNS 11379 :2007	1	Bending	36.094	4.095	2.833	182	180	4
		2		36.098	4.577	2.830	174		
		3		36.096	4.534	2.829	183		
		4		36.096	4.563	2.827	183		
		5		36.012	4.547	2.840	179		

NOTE: #Since the client did not provide stone grain direction, it is not possible to provide compressive strength in directions perpendicular and parallel to the grain.

TEST ITEM	TEST METHOD	SAMPLE NO.	#CURING METHOD	SAMPLE DIMENSIONS L (cm)	寬 (cm)	F (cm)	TEST RESULT Modulus (kgf/cm²)	Average of Rupture (kgf/cm²)
Modulus of Rupture	CNS 11322 :2000	1	Destructive	20.028	10.084	5.787	187	183
		2		20.014	10.054	5.759	187	
		3		20.022	10.064	5.733	173	
		4		20.038	10.054	5.733	183	
		5		20.056	10.092	5.794	129	

NOTE: #Since the client did not provide stone grain direction, it is not possible to provide compressive strength in directions perpendicular and parallel to the grain.

If the client provides specification values, they are for reference only. Acceptance is based on client instructions.

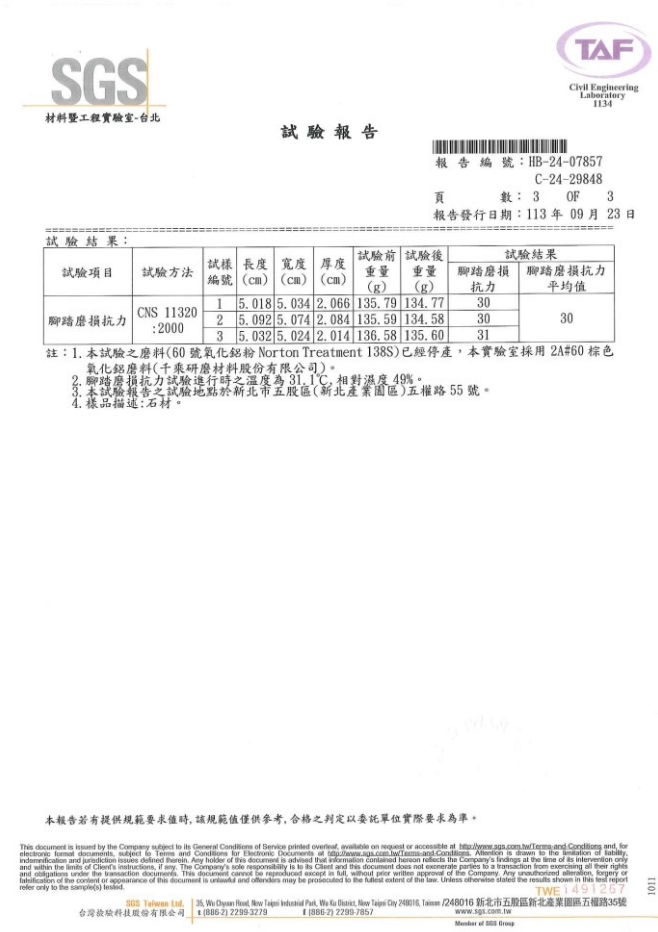
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Civil Engineering Laboratory 1134

試 驗 報 告

報 告 編 號：HB-24-07857
C-24-29848
頁　　數：3　OF　3
報告發行日期：113 年 09 月 23 日

試 驗 結 果：

試驗項目	試驗方法	試樣編號	長度 (cm)	寬度 (cm)	厚度 (cm)	試驗前重量 (g)	試驗後重量 (g)	試驗結果	
								腳踏磨損抗力	腳踏磨損抗力平均值
腳踏磨損抗力	CNS 11320 :2000	1	5.018	5.034	2.066	135.79	134.77	30	30
		2	5.092	5.074	2.084	135.59	134.58	30	
		3	5.032	5.024	2.014	136.58	135.60	31	

註：1. 本試驗之磨料(60 號氧化鋁粉 Norton Treatment 138S)已經停產，本實驗室採用 2A#60 棕色氧化鋁磨料(千乘研磨材料股份有限公司)。
2. 腳踏磨損抗力試驗進行時之溫度為 31.1℃，相對濕度 49%。
3. 本試驗報告之試驗地點於新北市五股區(新北產業園區)五權路 55 號。
4. 樣品描述：石材。

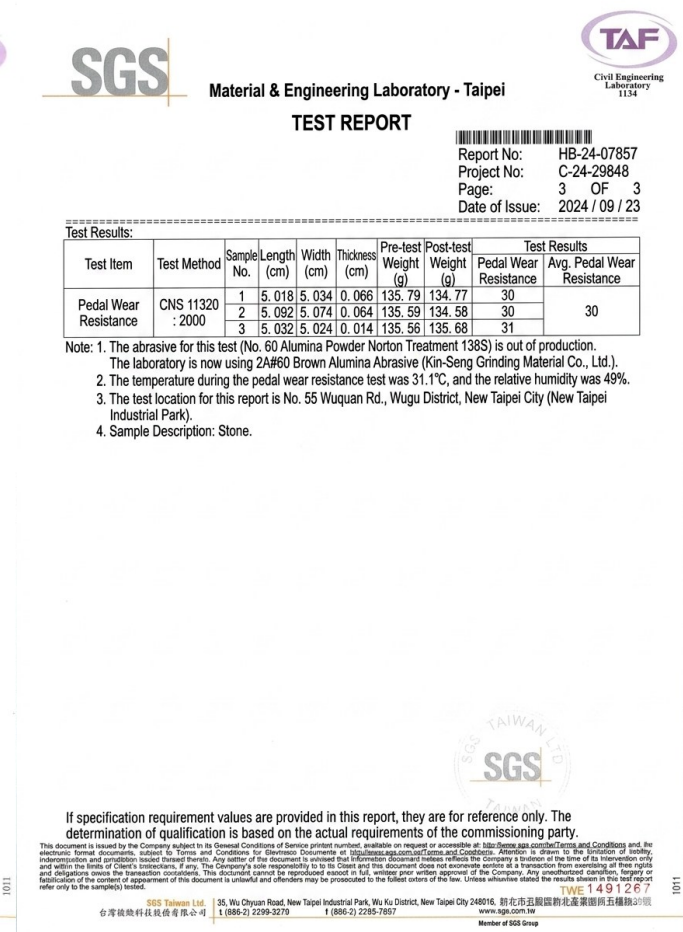
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Material & Engineering Laboratory - Taipei

Civil Engineering Laboratory 1134

TEST REPORT

Report No: HB-24-07857
Project No: C-24-29848
Page: 3 OF 3
Date of Issue: 2024 / 09 / 23

Test Results:

Test Item	Test Method	Sample No.	Length (cm)	Width (cm)	Thickness (cm)	Pre-test Weight (g)	Post-test Weight (g)	Test Results	
								Pedal Wear Resistance	Avg. Pedal Wear Resistance
Pedal Wear Resistance	CNS 11320 : 2000	1	5.018	5.034	0.066	135.79	134.77	30	30
		2	5.092	5.074	0.064	135.59	134.58	30	
		3	5.032	5.024	0.014	135.56	135.68	31	

Note: 1. The abrasive for this test (No. 60 Alumina Powder Norton Treatment 138S) is out of production. The laboratory is now using 2A#60 Brown Alumina Abrasive (Kin-Seng Grinding Material Co., Ltd.).
2. The temperature during the pedal wear resistance test was 31.1℃, and the relative humidity was 49%.
3. The test location for this report is No. 55 Wuquan Rd., Wugu District, New Taipei City (New Taipei Industrial Park).
4. Sample Description: Stone.

If specification requirement values are provided in this report, they are for reference only. The determination of qualification is based on the actual requirements of the commissioning party.

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