

工程指示 / 要求簡箋(E.I.)

工程指示編號：EI / 365 / 21 修改版次：
 工程編號：J - 852 工程名稱：亞皆老街中電
 工程項目：鐘樓 玻璃欄河五星泥(Webertec)
 收件人：Maggie 發件人：Ant Yeung 日期：23/07/2021

要求提供 / 確認 事項：

- | | | |
|------------------------------------|-------------------------------------|-------------------------------|
| <input type="checkbox"/> 初步鋁料 B.M. | <input type="checkbox"/> 加工拆圖，然後生產 | <input type="checkbox"/> 尺寸表 |
| <input type="checkbox"/> 正式鋁料 B.M. | <input type="checkbox"/> 技術上資料 / 指示 | <input type="checkbox"/> 報價 |
| <input type="checkbox"/> 配件 B.M. | <input type="checkbox"/> 樣辦或貨品說明書 | <input type="checkbox"/> 分判合約 |

內容：

請訂購五星泥(webertec non shrink grout)，一包 25KG，訂 2 包

到地盆鐘樓 玻璃欄河位置使用

謝謝

請在 2021.07.28 前完成上列要求。

附：

以上項目為：

- 原合約工程包 原合約工程加 / 減賬 新工程報價

原因：-

分發東莞各部門：

- | | | | | | | | |
|---------------------------------|------------------------------|--------------------------------|------------------------------|-------------------------------|------------------------------|--------------------------------|------------------------------|
| <input type="checkbox"/> 生產技術總監 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 技術部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 生產部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 機械設計部 | <input type="checkbox"/> 連附件 |
| <input type="checkbox"/> 採購部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 生產統籌部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 小羅&清 | <input type="checkbox"/> 連附件 | | |
| <input type="checkbox"/> 質檢部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 會計部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 報關組 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 其他 | <input type="checkbox"/> 連附件 |

分發其他分判：

- 水洪 連附件

分發香港各部門：

- | | | | | | | | | |
|---|------------------------------|-------------------------------|------------------------------|------------------------------|------------------------------|---|---|----|
| <input type="checkbox"/> 行政部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 會計部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 統籌部 | <input type="checkbox"/> 連附件 | <input checked="" type="checkbox"/> 工程部地盤科文 | <input checked="" type="checkbox"/> 連附件 | 祥哥 |
| <input checked="" type="checkbox"/> 採購部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> QS 部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 維修部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 其他 | <input type="checkbox"/> 連附件 | |

傳遞編號：

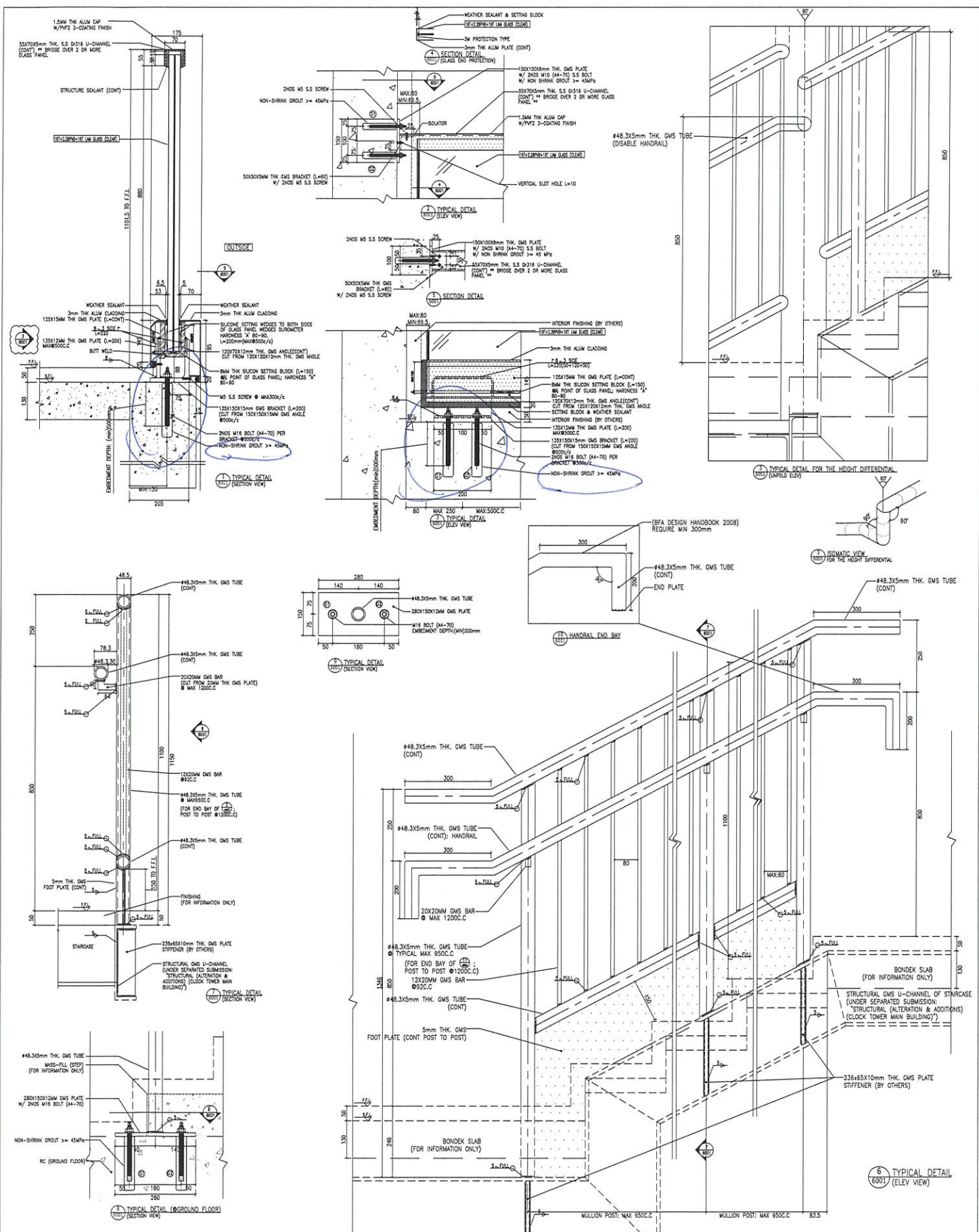
HK 21

發件人簽署：

項目經理簽署：

2
PPZ

 美特鋁質有限公司 MIDI Aluminium Fabricator Ltd.	工程號: J852	計算:	CJM	日期:	2020.08.12	送呈:				
	地盤名稱: 亞皆老街	核對:	wsh	日期:	2020.08.15	副本:				
地盤配件B.M.表	項目類別: 鐘樓玻璃欄河	批准:		日期:		此BM依據施工圖 來計算				
BM編號:	A/C Code:	修改說明:								
序號	修改標示	配件圖號	物料編號	配件名稱	顏色	實用	後備	總數	單位	備注
1				Webertec五星泥		2		2	包	1包25kg
							合計:	2		



DATE: 17-Dec-20 SCALE: 1:10
 DRAWN BY: JHR CHECKED BY: DJW
 PROJECT: PROPOSED DEVELOPMENT AT KOWLOON INLAND LOT NOS. 6035 R.F., 6036 R.F., 6037 R.F., 6038 R.F., AND LOT NO. 6005
 TITLE: TYPICAL DETAIL FOR GLASS & METAL BALUSTRADE OF CLOCK TOWER

NO. DATE REVISION
 JOB NO.: J-852
 PROJECT: PROPOSED DEVELOPMENT AT KOWLOON INLAND LOT NOS. 6035 R.F., 6036 R.F., 6037 R.F., 6038 R.F., AND LOT NO. 6005
 TITLE: TYPICAL DETAIL FOR GLASS & METAL BALUSTRADE OF CLOCK TOWER

NOTE:
 1. ALL DIMENSIONS ARE IN mm.
 2. ALL ELEVATIONS ARE VIEWED FROM OUTSIDE.
 3. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE FABRICATION.

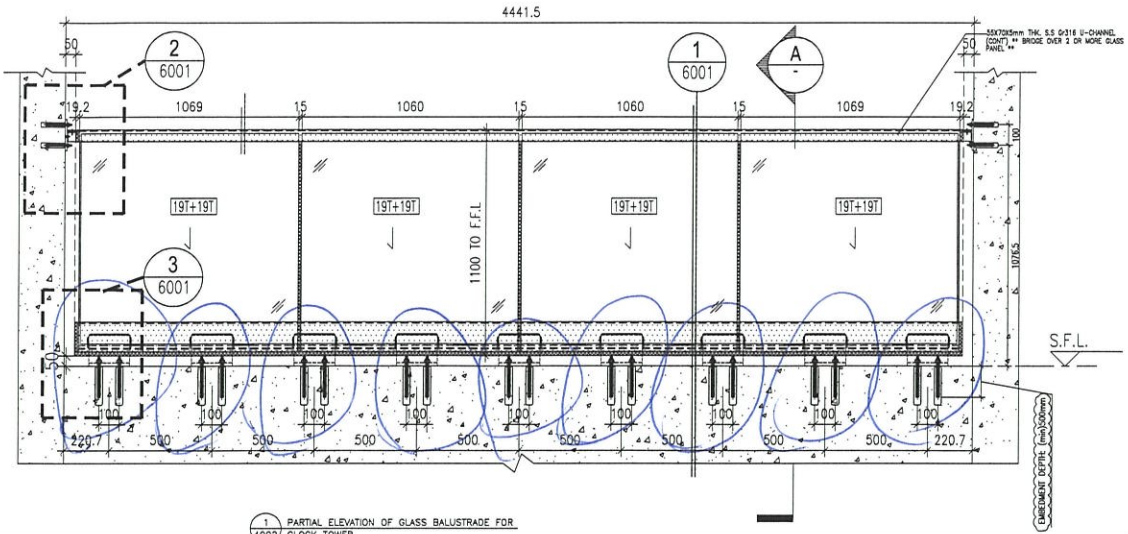
LEGEND:
 (X) DETAIL MARK NO.
 (S) REFER SHEET NO.
 1. F.F.L. -- FINISHED FLOOR LEVEL
 2. S.F.L. -- STRUCTURAL FLOOR LEVEL
 3. (R) -- REVERSED DETAIL

NO. EXCEED ONE NUMBER PER SHEET
 FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS
 ALL DIMENSIONS MUST MATCH/CONFORM HEREON
 BY: JHR 20/12/20

ARCHITECT: **ARC** DESTOR LTD
 MAIN CONTRACTOR: **GAMMON**

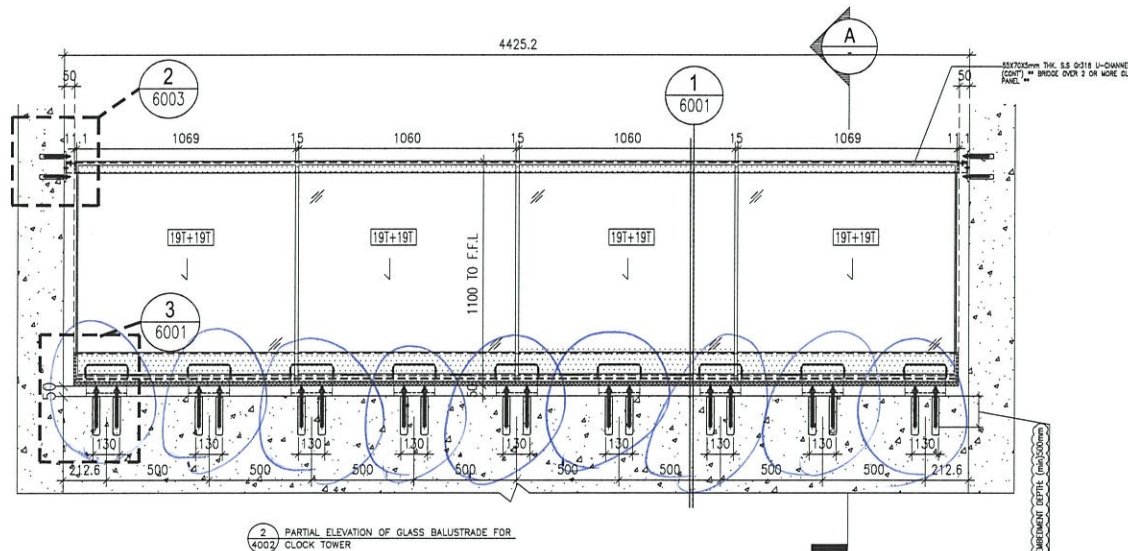
STRUCTURAL ENGINEER: **ARUP**
MEINHARDT

B.O. REF.:

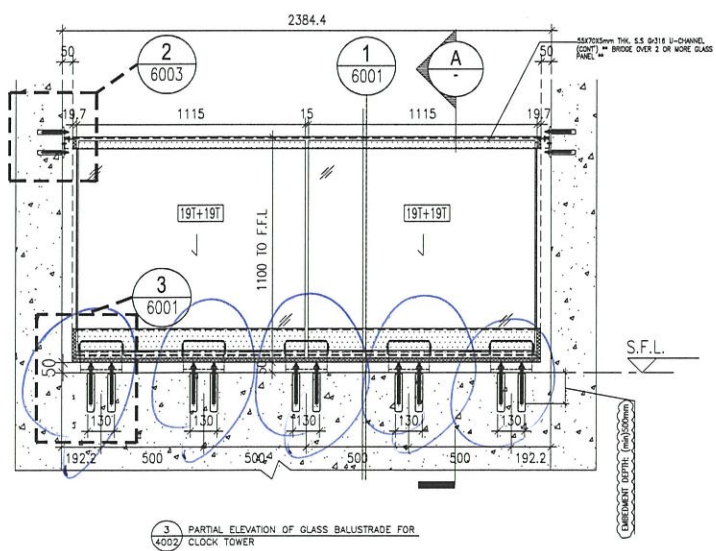


1 PARTIAL ELEVATION OF GLASS BALUSTRADE FOR CLOCK TOWER 4002

SECTION A-A REFER TO DWG: 1/3001



2 PARTIAL ELEVATION OF GLASS BALUSTRADE FOR CLOCK TOWER 4003



3 PARTIAL ELEVATION OF GLASS BALUSTRADE FOR CLOCK TOWER 4005

DATE: 17-Dec-20	SCALE: 1:25	
DRAWN BY: LHR	CHECKED BY: DW	
業特經貿有限公司 MIDT Architecture & Interiors Ltd. Units 6-8, Sunray Industrial Centre, 1/F 610 Chee Koo Ling Road, Kowloon Tel: (852) 27721866 Fax: (852) 27721868		
TITLE: GLASS BALUSTRADE PART ELEV. & PART SECTION (CLOCK TOWER)		
JOB NO.: J-652	PROJECT: PROPOSED DEVELOPMENT AT KOWLOON INLAND LOT NOS. 6035 R.P., 6036 R.P., 6037 R.P., 6038 R.P., AND LOT NO. 6005	
NO.	DATE	REVISION

NOTE:
 1. ALL DIMENSIONS ARE IN mm.
 2. ALL DIMENSIONS ARE VIEWED FROM OUTSIDE.
 3. ALL DIMENSIONS TO BE VERIFIED ON SITE BEFORE FABRICATION.

LEGEND:
 1. F.F.L. -- FINISHED FLOOR LEVEL
 2. S.F.L. -- STRUCTURAL FLOOR LEVEL
 3. -- REVERSED DETAIL

ALL DIMENSIONS ARE VIEWED FROM OUTSIDE BEFORE FABRICATION.
 ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BEFORE FABRICATION.
 ALL DIMENSIONS ARE TO BE VERIFIED ON SITE BEFORE FABRICATION.

ARCHITECT: **AGC DESIGN LTD**

STRUCTURAL ENGINEER: **Gammion**

FAÇADE CONSULTANT: **ARUP**

MEINERDIT

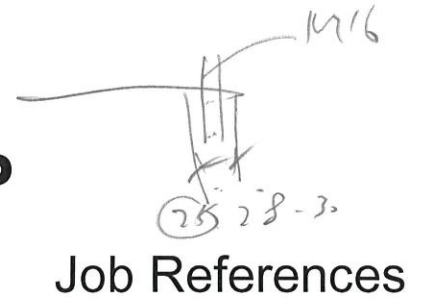
MAIN CONTRIBUTOR: **AGC DESIGN LTD**

REV: C

B.O. REF: 3/3063/10

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)



Hong Kong & Macau

2020	HK-Zhuhai-Macao Bridge (HKBCF) Infrastructure Works Stage II (Southern Portion)	港珠澳大橋香港口岸 - 基礎設施工程第2期 (南面部分)
2020	Redevelopment of Kwong Wah Hospital (Phase 1), 25 Waterloo Road, Yau Ma Tei	油麻地廣華醫院 重建項目
2020	Sports Centre, Community Centre and Football Pitches in Plover Cove Road, Area 1, Tai Po	大埔第1區寶湖道體育館、社區中心及足球場
2020	Residential Development at NKIL 6542, Yin Ping Road, Tai Wo Ping, Shek Kip Mei	石硤尾大窩坪延坪道以北NKIL6542號 住宅項目
2020	Residential Development at NKIL 6584, Off Sin Fat Road, Kwun Tong	觀塘茜發道對出 NKIL6584號 住宅項目
2020	Residential Development at Site A and Estate Road of Wong Chuk Hang Station, AIL 467, Wong Chuk Hang	黃竹坑站(第一期)上蓋物業發展
2020	Residential Development at 66 Lee Nam Road, ALCIL 136, Ap Lei Chau	鴨脷洲利南道66號 住宅項目
2020	Residential Development at YNIL 44, j/o Shung Shun Street and Yan Yue Wai, Yau Tong	油塘崇信街與仁宇圍交界YNIL44號 住宅項目
2020	Residential Development at 33-47 Catchick Street, Kennedy Town	堅尼地城吉席街33-47號 住宅項目
2020	(Two Taikoo Place) Redevelopment of TaiKoo Place Phase 2B, Quarry Bay	太古坊第2B期重建項目
2020	Proposed Religious Institution (Ling Liang Church) at 322 Prince Edward Road West / 3 Junction Road, Kowloon City	九龍城太子道西322號及聯合道3號 靈糧堂
2019	North Commercial District Enabling Works at Hong Kong International Airport (Contract P561)	香港國際機場北商業區發展 - 機場北商業區啟動項目(P561)
2019	Transport Department's Vehicle Examination Centre at Sai Tso Wan Road, Tsing Yi	青衣西草灣路運輸署驗車中心

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2019	(Grand Marini & Marini) Residential Development at Lohas Park Package 9 (Site J), Area 86, TKOTL 70, North of Wan O Road, Tseung Kwan O	將軍澳 日出康城第9期 Grand Marini & Marini
2019	(Montara & Grand Montara) Residential Development at Lohas Park Package 7 (Site C1), Area 86, TKOTL 70, Tseung Kwan O	將軍澳日出康城第7期 Montara & Grand Montara
2019	(Atrium House) Residential Development at Lung Tin Tsuen Phase 3, Yuen Long	元朗龍田村三期 臻頤
2019	Residential Development at (KIL 11015-11020), 2 Tak Shing Street, Jordan	佐敦德成街2號 住宅項目
2019	Residential Development at 10-12A La Salle Road & 168-168C Boundary Street, Kowloon City	九龍城界限街168-168C及喇沙利道10-12A號 住宅項目
2019	(The Regent) Residential Development of TPTL221, 8 Shan Tong Road, Lai Chi Shan, Tai Po	大埔荔枝山山塘路8號 天鑽
2019	(63 Pokfulam) Residential Development at 45-65A Pok Fu Lam Road, Pok Fu Lam	薄扶林道63號
2019	Renovation works of 18 Shek O Headland Road, Shek O	石澳石澳山仔路18號
2019	Residential development at 46-48 Lion Rock Road, Kowloon City	九龍城獅子石道46-48號 住宅項目
2019	Regala Skycity Hotel Development, Site A1a of SkyCity Phase 1, Chek Lap Kok Lot 3, Hong Kong International Airport, Lantau Island	大嶼山航天城第A1a號用地(赤鱗角地段第3號) 航天城第1期 - 麗濠航天城酒店
2019	Commercial Extension of DP Plaza at Lot 385 RP in DD 352 & The Extensions Thereto, Area 9A, Tak Pak, Discovery Bay	愉景灣大白9A區DD 352 Lot 385號 愉景廣場擴建
2019	A&A works of Windsor House, 311 Gloucester Road, Causeway Bay	銅鑼灣告士打道311號皇室大廈 擴建項目
2019	The Eastmark, 21 Sheung Yuet Road, Kowloon Bay	九龍灣常悅道21號 The Eastmark

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2018	(Cognitio College (Kowloon)) Secondary School at Site 1A-2, Kai Tak Development	啟德沐虹街 文理書院(九龍)
2018	Design and Construction of West Kowloon Government Offices	西九龍政府合署
2018	Hong Kong Airlines Aviation Training Centre, Chek Lap Kok	赤鱗角香港航空飛行培訓中心
2018	(Seaside Sonata) URA Redevelopment at Hai Tan Street / Kweilin Street and Pei Ho Street, NKIL 6506, Sham Shui Po	深水埗海壇街201, 203 & 218號 愛海頌
2018	(Cetus · Square Mile) Residential Development at 8A-30A Fuk Chak Street & 8-30 Ka Shin Street, Tai Kok Tsui	大角咀嘉善街18號 利奧坊 · 凱岸
2018	(Novi) Redevelopment at 48-56 Ki Lung Street, Sham Shui Po	深水埗基隆街48-56號 逸新
2018	(University Heights) Redevelopment of 42-44 Kotewall Road, Mid Levels	半山區旭龢道42號 大學閣
2018	(The Aurora) Residential Development at TWTL 393, J/O Yeung Uk Road & Ma Tau Pa Road, Tsuen Wan	荃灣楊屋道88號 映日灣
2018	(The Horizon II) Residential Development at TPTL 227, Chong San Road, Pak Shek Kok, Tai Po	大埔白石角創新路TPTL227號 海日灣II
2018	Development at Area 2A/2B, Discovery Bay	愉景灣2A及2B 發展項目
2018	Residential Development at 25 Wong Nai Chung Road, Happy Valley	跑馬地黃泥涌道25號 住宅項目
2018	Residential Development at NKIL 5271, 2 Beacon Hill Road, Kowloon Tong	九龍塘筆架山道2號
2018	(LL Tower) Office Development at 2-4 Shelley Street, Central	中環些利街2-4號 LL Tower
2018	Commercial Development at 68-72C Kimberley Road, Tsim Sha Tsui	尖沙咀金巴利道68-72C號 商廈項目

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2018	Extension of Hong Kong Jockey Club Clubhouse at Shan Kwong Road, Happy Valley	跑馬地山光道 賽馬會會所擴建工程
2017	Harbour area treatment scheme stage 2A - upgrading works at Stonecutters Island sewage treatment works (DC/2009/17)	淨化海港計劃第二期甲昂船洲污水處理 廠改善工程 – 污泥處理設施 (合約編號：DC/2009/17)
2017	Wan Chai Development - Central - Wan Chai Bypass at Wan Chai West (Contract: HK/2010/06)	灣仔發展計劃 - 中環灣仔繞道灣仔西段 (合約編號: HK/2010/06)
2017	Redevelopment of The Avenue of Stars & Tsim Sha Tsui Promenade, Tsim Sha Tsui	尖沙咀星光大道 重建項目
2017	Public Rental Housing Development at Choi Yuen Road Sites 3 & 4, Sheung Shui	上水彩園路3號和4號地盤 公屋發展計劃
2017	Subsidised Sale Flats Development at Shatin Area 16, Wo Sheung Tun Street, Fo Tan	沙田火炭禾上墩街居者有其屋計劃 發展項目
2017	(Wings at Sea) Residential Development at Lohas Park Package 4 (Site O), Area 86, TKOTL 70, Tseung Kwan O	將軍澳 日出康城第4期 晉海
2017	(Eden Manor) Residential Development at 88 Castle Peak Road, Kwu Tung, Fanling	粉嶺青山公路古洞段88號 高爾夫·御苑
2017	(Mont Rouge) Residential Development at NKIL 6532, Lung Cheung Road, Beacon Hill, Kowloon Tong	九龍畢架山龍駒道9號 緹山
2017	(Mount Regalia) Residential Development at STTL 578, Area 56A, Kau To, Shatin	沙田九肚麗坪路23號 富豪·山峯
2017	(93 Pau Chung Street) Residential Development at 93 Pau Chung Street, To Kwa Wan	土瓜灣炮仗街93街 喜築
2017	(One East Coast) Residential Development at 1 Lei Yue Mun Path, Lei Yue Mun	鯉魚門徑1號 海傲灣
2017	(Upper East) Residential Development at 23 Sung On Street, Hung Hom	紅磡崇安街23號 環海·東岸
2017	(The Horizon) Residential Development at TPTL 213, Fo Chun Road, Pak Shek Kok, Tai Po	大埔白石角科進路18號 海日灣

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2017	(Citygate Outlets Phase 2) Retail & Hotel Development at TCTL2 & TCTL11, Tung Chung	東涌東薈城2期
2017	(Hotel COZi) Wholesale Conversion of an Existing Industrial Building to Hotel Development at TMTL 155, 4 Kin Fung Circuit, Tuen Mun	屯門建豐街4號 悦品度假酒店·屯門
2017	A & A works at The Oasis at 8-12 Peak Road, The Peak	山頂道8-12號欣怡居 加建項目
2017	A&A Works for Yoo Hoo Tower, 38-42 Kwai Fung Crescent, Kwai Chung	葵涌葵豐街38-42號大鴻輝(葵涌)中心 加建項目
2017	A&A works of Gateway TS (Phase 4), 8 Cheung Fai Road, Tsing Yi	青衣長輝路8號 橋匯4期
2016	Residential Development at Lot No.1949 in DD221, Sha Kok Mei, Sai Kung, N.T.	西貢 沙角尾 美福街 逸瓏園Lot 1949, DD221
2016	Residential Development at No. 35 Barker Road, The Peak, Hong Kong	山頂白加道35號
2016	Residential Development at Lohas Park Phase 4, (Site O) TKOTL 70, Area 86, Tseung Kwan O	將軍澳第86區將軍澳市地段70號地盤O日出康城 第4期
2016	Residential Development at 93 Pau Chung Street, To Kwa Wan	土瓜灣炮仗街93街 住宅項目
2016	Renovation works for Grand Garden (Phase 2), 61 South Bay Road, Repulse Bay	淺水灣南灣道61號華景園
2016	Hotel Development at TCTL2 & 11, Tat Tung Road and Mei Tung Street, Tung Chung (HC201605)	東涌TCTL2 & 11 酒店發展項目
2016	Foundation and Site Formation for Home Ownership Scheme Development at Wo Sheung Tun Street, Fo Tan, Shatin (Contract No. 20140320)	沙田火炭禾上墩街居者有其屋計劃發展項目地基及地盤平整工程
2016	A&A Works for Yoo Hoo Tower, 38-42 Kwai Fung Crescent, Kwai Chung	葵涌葵豐街38-42號大鴻輝(葵涌)中心二期

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2016	Wong To Yick Wood Lock Ointment Factory Development at J/O Fuk Hi Street & Fuk Shun Street, Y.L.T.L. 313 s.A R.P. & Extension Thereto, Yuen Long Industrial Estate	元朗工業村福喜街及福順街YLTL 313 黃道益
2016	Residential Development at Area 68A2 (TKOTL 95), 29 Tong Yin Street, Tseung Kwan O	將軍澳第68A2區(TKOTL 95) 唐賢街29號 住宅項目
2016	Commercial Development at 14-30 King Wah Road, North Point	北角京華道14-30號 商業項目
2016	Eltanin · Square Mile, 11 Li Tak Street, Tai Kok Tsui (site name: Residential Development at 11-33 Li Tak Street, Tai Kok Tsui)	大角咀利得街11號 利奧坊·曉岸
2016	Public Rental Housing Development at Choi Yuen Road Sites 3 & 4, Sheung Shui	上水彩園路3號和4號地盤公屋發展計劃
2016	Public Rental Housing Development at Shek Mun Estate Phase 2, Shatin	沙田碩門邨第二期 公屋發展計劃
2016	Logistics Centre at Tsing Yi Town Lot No.181	青衣地段181 物流中心
2016	Residential Development at TW6, TWTL402, Tsuen Wan West Station	荃灣西(六區) 物業發展
2016	Christian Alliance International School, King Lam Street, KIL6503, Lai Chi Kok, Kowloon	荔枝角瓊林街 宣道國際學校
2016	Gleneagles Hong Kong Hospital, Nam Fung Path, Wong Chuk Hang	黃竹坑南風徑 港怡醫院
2016	Xiqu Centre West Kowloon Cultural District	西九文化區戲曲中心
2016	One Homantin, 1 Sheung Foo Street, Ho Man Tin (site name: Residential Development at KIL11228, 1 Sheung Foo Street, Ho Man Tin)	何文田常富街1號 One Homantin
2016	A&A Works for Takan Lodge at 199 Johnston Road, Wan Chai, Hong Kong	灣仔莊士敦道199號 德安樓
2016	Residential Development TPTL 187, Pak Shek Kok, Tai Po	大埔白石角TPTL 187 科學園科進路6號

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2016	Residential and Commercial Development at TKOTL 112 Area 65C1, Chi Shin Street, TKO	將軍澳至善街第65C1區(將軍澳市地段第112號)
2016	Residential Development at Area 44, TMTL 498, J/O Wu On Street/Wu Hong Street, Tuen Mun	屯門湖安街與湖康街交界第44區(屯門市地段第498號)
2016	Residential Development at No. 4 Wiltshire Road, Kowloon Tong	九龍塘渭州道4號
2015	Residential Development at West Rail Long Ping Station (North), Yuen Long	元朗西鐵朗屏站(北)住宅發展項目
2015	Residential Development at Tsuen Wan West (TW5) Bayside, Phase 2, TWTL401, Tsuen Wan West Station	聯力-荃灣西站, Phase 2, TWTL401(荃灣西(五區)城畔)
2015	Residential development at 77-87 Ma Tau Wai Road, To Kwa Wan, Kowloon	土瓜灣馬頭圍道77-87號住宅發展項目
2015	Residential Development at 77 Peak Road, The Peak	山頂道77號
2015	Renovation Works of Stanford Hillview Hotel, 13-17 Observatory Road, Tsim Sha Tsui	尖沙咀天文台道13-17號仕德福山景酒店
2015	Residential Development at STTL 574, Choi Sha Street, Lok Wo Sha, Ma On Shan, Sha Tin	沙田馬鞍山落禾沙彩沙街沙田市地段第574號
2015	Sports Centre and Library at Area 3, Yuen Long	元朗第3區公共圖書館及體育館
2015	Kai Tak Primary Schools at Site 1A-3 and Site 1A-4, Kai Tak Development	啟德發展計劃 - 啟德1A-3及1A-4兩所小學
2015	Sports Centre, Community Hall cum Public Library in Area 14B, Shatin	沙田第14B區體育館、社區會堂暨圖書館
2015	West Kowloon Law Courts Building	深水埗 西九龍法院大樓
2015	Hotel Development at Area 108A, TSWTL 26, Tin Shui Wai	天水圍第108A區TSWTL 26酒店項目
2015	Residential Development at IL8920, Oil Street, North Point	北角油街IL8920地段 住宅項目

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2015	The Zumurud, 204 Argyle Street, Ma Tau Kok (site name: Residential Development at 200 Argyle Street, Kolwoon)	馬頭角亞皆老街204號 君柏
2015	Residential Development at NKIL6493, Inverness Road, Kowloon Tong	九龍塘延文禮士道NKIL6493 住宅項目
2015	Residential Development at 90 Repulse Bay Road, Repulse Bay	淺水灣道90號 住宅項目
2015	Goldin Financial Global Centre, 17 Kai Cheung Road, Kowloon Bay	九龍灣啟祥道17號 高銀金融國際中心
2015	Residential Development at 11 Grampian Road, Kowloon City	九龍城嘉林邊道11號 住宅項目
2015	Research Complex Building at Hong Kong Shue Yan University	香港樹仁大學研究綜合大樓
2015	Home Ownership Scheme at Kiu Cheong Road and Ngan Kwong Wan Road East and West	橋昌路和銀礦灣路東及西 居屋發展
2015	Public Rental Housing Development at So Uk Estate Phase 2	深水埗蘇屋邨第2期 公屋項目
2015	A&A works of Maxim's Food Factory Phase 3B, 14 Dai Fu Street, Tai Po	大埔工業邨大富街14號 擴建項目
2015	MTR Shatin to Central Link (Contract no: 1112) Hung Hom Station and Stabling Sidings	港鐵沙田至中環綫(1112) 紅磡站擴建工程及列車停放處建造工程
2015	MTR Shatin to Central Link (Contract no: 11209) Platform Modification and Associated Works at East Rail Line	港鐵沙田至中環綫(11209) 東鐵綫車站月台改善及相關工程
2015	MTR Kwun Tong Line Extension (Contract no: 1001) Yau Ma Tei to Whampoa Tunnels and Ho Man Tin Station	觀塘綫延綫 (1001) 油麻地至黃埔隧道及何文田站工程
2015	Residential Development at 8 Kent Road, Kowloon Tong	九龍塘根德道8號 住宅項目
2015	Hotel Development at KIL 11205, Hung Hom	紅磡紅鸞道與華信街交界 KIL11205 酒店項目

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

Job References

2015	Alassio, 100 Caine Road, Mid Levels (site name: Residential Development of Phase 2, 33 Seymour Road / 2 Castle Road / 100 Caine Road, Mid Levels)	半山區堅道100號 殷然
2015	Heya Aqua, 393, 395, 397, 399 Un Chau Street / 500, 502 Fuk Wing Street, Cheung Sha Wan (site name: URA (K22) Redevelopment at Fuk Wing Street / Hing Wah Street / Un Chau Street, Sham Shui Po)	長沙灣元州街393、395、397及399號/福榮街500及502號 喜漾
2015	Peninsula East, 3, 5, 7, 9 & 11 Tung Yuen Street, Yau Tong (site name: Residential Development at Y.T.I.L. 40 / No. 5 Tung Yuen Street, Yau Tong)	油塘東源街3,5,7,9&11號 Peninsula East
2015	Kensington Hill, 92-98 High Street, Sai Ying Pun	西營盤高街92-98號 Kensington Hill
2015	A&A works of 11 Sheung Yuet Road, Kowloon Bay	九龍灣常悅道11號
2015	The Toy House, 100 Canton Road, Tsim Sha Tsui	尖沙咀廣東道100 號彩星中心
2015	Refurishment works of Hang Seng Mongkok Building, 113-115 Argyle Street, Mongkok	旺角亞皆老街113-115號 恒生旺角大廈
2015	A&A works of New Bright Building, 11 Sheung Yuet Road, Kowloon Bay	九龍灣常悅道11號 新明大廈
2015	Centre of Excellence in Paediatrics, Kai Tak	啟德兒童醫院
2015	MTR Shatin to Central Link (Contract no: 11209): Platform Modification and Associated Works at East Rail Line	東鐵綫車站月台改善及相關工程
2015	Residential Development at 62-76 Ap Lei Chau Main Street	鴨脷洲大街62-76號

METHOD STATEMENT

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

1. SUBSTRATE PREPARATIONS

The substrate surface must be clean, sound and free from oil, grease, curing compounds or any loose materials.

Bolts and anchor holes must be clean and free from dust or loose material.

There should be no gap between the formwork and the sides of the plate.

The formwork should be designed so that the grout must flow beneath the plate to reach the side further from the pouring hopper.

Grout tight formwork should not deform, deflect or leak when subjected to the hydraulic pressure of grout.

It is essential to pre-soak the concrete substrate prior to application of **webertec non shrink grout GP**.

Excess water should be removed prior for grouting.

2. MIXING

Need only to use sufficient fresh clean water for different mode of application. The water demand and the yield are listed below:

	Dry Pack	Plastic	Fluid
Water Demand (%)	14 - 15%	16 -17%	19 - 20%
Water Demand (L/25 kg bag)	3.5 – 3.8 L	4 – 4.3 L	4.8 – 5 L
Yield / Litres	12.5 L	13 L	13.5 L

To obtain the best expansion for dry-pack mode and plastic mode, 3 - 5 minutes of mixing is enough. To obtain the best flow for fluid mode, 7 – 9 minutes of mixing with an electrical mixer with high shear stirrer.

High speed mixing machine mixing is recommended to achieve continuous mixing. It is not recommended to use low speed or colloidal impeller mixer.

3. INSTALLATION

3.1 Dry Pack

The product can be applied by trowel or by gloved hand.

The applied product should be pressed to avoid hollow space.

3.2 Plastic

The product can be applied by trowel.

3.3 Fluid

webertec non shrink grout GP can be placed thickness ranging from 20 mm to 150 mm in one single application.

The grout should be used within 30 minutes to gain the full benefit of the expansion process.

Any bolt pockets must be grouted prior to grouting between the substrate and the base plate.

For larger pours the grout may be hand placed or pumped into a removable hopper.

Do not use mechanical vibrators to assist in flow as this will cause segregation of product.

4. LIST OF TOOLS

- Mixing bucket of about 20 – 25 L for 1 bag of **webertec non shrink grout GP**
- High pressure water jet with 10 bar pressure (for cleaning if necessary)
- Electrical mixer with 700 rpm or above
- Steel trowel and other traditional plastering tools (for dry pack and plastic mode)

5. CURING

Upon completion of grouting, the exposed area should be covered with wet hessian or plastic sheet to prevent excessive moisture loss.

* Note: The information and physical data in this catalogue is given to the best of our knowledge under standard testing method and controlled environment. The results may vary with different weather / site conditions, workmanship or substrates. This is beyond our control that we shall not be liable for any faults or consequences arising or associated with this. We suggest comprehensive tests to be conducted before final application. Unless specified, all technical data are average values with curing time of 28 days. We reserve the right to update or amend the contents in the light of new findings during the course of research and development.



PRODUCT DATA SHEET

webertec non shrink grout GP

(Formerly known as E.MIX NON SHRINK GROUT GP)

General purpose shrinkage compensated cementitious grout

PRODUCT

webertec non shrink grout GP is a flowable and shrinkage compensated grout for general purpose. **webertec non shrink grout GP** contains no chloride or other substances which could aggravate corrosion of reinforcing steel or pre-stressing steel cables. The product is designed for uniform mixing, and minimising segregation and bleeding. **webertec non shrink grout GP** can be used for anchoring. It requires only addition of water to produce an easily applied free flowing grout. It can also be applied as a trowellable or dry pack material.

Uses

- Flowable and pumpable grouting
- Filling gaps of pre-cast and pre-stressed panels
- Grouting in columns
- Filling core holes, rod holes and defects in concrete
- Fill in grout for hollow block walls
- Concrete anchors, rail beds and machine foundation

Features and Benefits

- Formulated to comply with American Standard, British Standard and Hong Kong Standard
- Expansion system compensates for shrinkage and settlement whilst in the plastic state
- Can be dry packed, rammed, trowelled, poured and pumped
- High early strength and long term durability
- Fast setting: setting time less than 7 hours
- No metallic iron content to cause staining
- Chloride free : prevent rusting of the steel and anchor bolts
- Pre-mixed and ready-to-use : requires only addition of water

TECHNICAL DATA

Colour	Grey
Component	Portland cement, non-reactive aggregate, graded sand and other chemical additives
Max. aggregate size	4.0 mm
Yield	Approx. 13.5 L/25 KG bag for 19% water demand Approx. 74 bags/m ³
Density	2.2 kg/L (dry)
Pot life	Approx. 30 minutes
Thickness	20 – 150 mm
Coverage	Approx. 1.85 kg/m ² /mm

Page 1 of 3



Saint-Gobain Weber (Hong Kong) Building Material Co., Limited
聖戈班偉伯(香港)建材有限公司

PHYSICAL PROPERTIES

	Dry pack	Plastic	Fluid
Water demand	Approx. 14 – 15% (3.5 – 3.8 L/25 KG bag)	Approx. 16 – 17% (4 – 4.3 L/25 KG bag)	Approx. 19 – 20% (4.8 – 5 L/25 KG bag)
Yield	12.5 L	13 L	13.5 L
Age	Compressive strength (BS 6319: Pt 2, HKHA MTS(2002/2004) Spec. Part D, Cl. 2.1.1)		
1 day	30 N/mm ²	20 N/mm ²	15 N/mm ²
3 days	45 N/mm ²	35 N/mm ²	30 N/mm ²
7 days	55 N/mm ²	45 N/mm ²	40 N/mm ²
28 days	75 N/mm ²	70 N/mm ²	60 N/mm ²
Expansion at 24 hours	ASTM C 827		1 – 4 %
Expansion at 28 days	ASTM C 1090		0 – 0.4%
Flow of grout	ASTM C 939		< 35 seconds at 20% water demand
Setting time	ASTM C 953		< 7 hours
Bleeding	ASTM C 940		No bleeding
Bond strength at 7 days	BS 6319 : Part 7		1.5 N/mm ²
Chloride content	BS 1881 : Part 124		≤ 0.01%
Figg air permeability	HKHA MTS (2006/2008) Spec. Part D, Cl. 2.1.7)		> 250 seconds

Unless specified, all technical data are average values and refer to 28 days curing time.

Above physical data are taken on laboratory tests. In situ material performance may vary according to environmental & workmanship conditions beyond manufacturer control.

Complied Standards

American Standard :	ASTM C 827 (Free expansion within 24 hours), ASTM C 1090 (Free expansion between 3-28 days), ASTM C 939 (Flow cone method), ASTM C 953 (Setting time), ASTM C 953 (Setting time) ASTM C 940 (Bleeding)
British Standard :	BS 6319 : Pt 2 : 1983 (Compressive strength), BS 6319 : Pt 7 : 1984 (Bond strength) BS 1881 : Pt 124 : 1988 (Chloride content)
Hong Kong Standard:	HKHA : MTS

PROCEDURE

Substrate Preparations

The surface of substrate must be clean, sound and free from oil, grease, curing compounds or any loose materials.

Bolts and anchor holes must be clean and free from dust or loose material.

It is essential to pre-soak the concrete substrate with water prior to application of **webertec non shrink grout GP**. Excess water should be removed prior for grouting.

Mixing and Installation

Mix a bag of dry-mixed powder (25 KG) with appropriate amount of water (depending on the application mode) by using an electrical mixer. For flowable grout, approx. 19 – 20% (4.8 – 5 L) of water is needed for fluid mode. For trowelling grout, approx. 16 – 17% (4 – 4.3 L) of water is required for plastic mode, while approx. 14 – 15% (3.5 – 3.8 L) of water is required for dry pack mode.

To obtain the best expansion for dry-pack or plastic mode, 3-5 minutes of mixing is enough. To obtain the best flow for fluid mode, 7 – 9 minutes of mixing is needed.

Apply **webertec non shrink grout GP** within 30 minutes after mixing and under working condition +5°C.

webertec non shrink grout GP can be applied to a thickness of 20 – 150 mm in single application, please consult our technical department for any application thickness beyond 150mm.

Do not use mechanical vibrators to assist flowing, as this will cause segregation of product.

Machine mixing is recommended to achieve continuous mixing and application.

Please refer to our method statement for procedures in details.

Curing

Upon completion of grouting, the exposed area should be covered with wet hessian or plastic sheet to prevent excessive moisture loss.

STORAGE AND PACKING

webertec non shrink grout GP is delivered in 25 kg bag. Storage life is 12 months if the product is kept in a dry place.

HEALTH AND SAFETY

Recommend to wear NIOSH approved or equivalent particulate face mask when mixing the material.

Material contains cement, which may produce an allergic effect.

Material may cause irritation to eyes and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical assistance. After contact with skin, wash immediately with plenty of soap and water.

Keep out of reach of children.

Please refer to Material Safety Data Sheet (MSDS) for health, safety and handling of the product.

CLEANING & DISPOSAL OF WASTE

Cured material can be removed mechanically, if uncured, material can be removed with water. Dispose of waste in accordance with legislation.

* Note: The information and physical data in this catalogue is given to the best of our knowledge under standard testing method and controlled environment. The results may vary with different weather / site conditions, workmanship or substrates. This is beyond our control that we shall not be liable for any faults or consequences arising or associated with this. We suggest comprehensive tests to be conducted before final application. Unless specified, all technical data are average values with curing time of 28 days. We reserve the right to update or amend the contents in the light of new findings during the course of research and development.

Test Report

Repair Mortar - Compressive Strength of Repair Mortar Cubes

(HKHA MTS (2012/2014) for Maintenance & Building Materials Specification Part D Cl. 2.1.1 and BS 6319 : Part 2 : 1983)

Date of issue: 08-01-2020

Page 1 of 1 page

Castco LRN: MR0190909-18

Sample details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's Ref. No. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Job title: Material Testing

Work order No.: --

Location in work: --

Contract No.: --

Sample Description : webertec non shrink grout GP

Batch No.: --

Manufacturer: --

Brand name: Saint-Gobain Weber

Mix Proportions: W/C ratio = 14%

Sample from : manufacturer's complete pre-measured sample pack

Date cast: 20-09-2019

Specimens to be test at: 1 day

No. of specimen cast: 3 nos

Identification mark: 1D-1,2,3

Nominal size of specimens: 70.7 mm cube

Test Certificate for making test specimens : not attached

Laboratory Test Result

Date received: 09-09-2019

Date of test started: 20-09-2019

Date of test completed: 21-09-2019

A. Preparation of test specimen

Sample preparation location : In laboratory

Conditioning of materials before mixing : (In Laboratory) : Condition at 20 ± 1°C for a minimum of 16 hours

Method of mixing : By mixer

Curing of specimens after mixing : (In Laboratory) : Cure at 27 ± 2°C, 55 ± 5% relative humidity

Pre-curing of specimens : --

B. Determination of Compressive Strength

Age of specimen at test : 1 day

Ambient Temperature : 20.2 °C

RFID Tag no.	--	--	--	
Specimens identification mark	1D-1	1D-2	1D-3	
Weight in air g	799.3	805.6	804.2	
Nominal size, mm	70.7	70.7	70.7	
Load at failure, kN	277.7	287.5	296.6	
Compressive strength MPa	55.6	57.5	59.3	
Mean compressive strength MPa	57			
Mode of failure	N	N	N	

Mode of failure Legend:

A - Asymmetric failure;

B - Brittle failure;

N - Normal failure;

P - Plastic deformation.

- Remarks :
1. Loading rate is 45 MPa/min.
 2. Test result relates to the specimen tested only.
 3. Type of machine used for the test: Compression testing machine

Checked by: _____

WONG CHUN KIT
Laboratory Supervisor

Certified by: _____

End of Report

WONG KA MAN
Senior Manager

Test Report

Repair Mortar - Compressive Strength of Repair Mortar Cubes

(HKHA MTS (2012/2014) for Maintenance & Building Materials Specification Part D Cl. 2.1.1 and BS 6319 : Part 2 : 1983)

Date of issue: 08-01-2020

Page 1 of 1 page

Castco LRN: MR0190909-19

Sample details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's Ref. No. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Job title: Material Testing

Work order No.: --

Location in work: --

Contract No.: --

Sample Description : webertec non shrink grout GP

Batch No.: --

Manufacturer: --

Brand name: Saint-Gobain Weber

Mix Proportions: W/C ratio = 14%

Sample from : manufacturer's complete pre-measured sample pack

Date cast: 20-09-2019

Specimens to be test at: 3 days

No. of specimen cast: 3 nos

Identification mark: 3D-1,2,3

Nominal size of specimens: 70.7 mm cube

Test Certificate for making test specimens : not attached

Laboratory Test Result

Date received: 09-09-2019

Date of test started: 20-09-2019

Date of test completed: 23-09-2019

A. Preparation of test specimen

Sample preparation location : In laboratory

Conditioning of materials before mixing : (In Laboratory) : Condition at $20 \pm 1^\circ\text{C}$ for a minimum of 16 hours

Method of mixing : By mixer

Curing of specimens after mixing : (In Laboratory) : Cure at $27 \pm 2^\circ\text{C}$, $55 \pm 5\%$ relative humidity

Pre-curing of specimens : Maintain the specimens at $20 \pm 1^\circ\text{C}$ for not less than 16 hrs before testing commences

B. Determination of Compressive Strength

Age of specimen at test : 3 days

Ambient Temperature : 20.6°C

RFID Tag no.	--	--	--	
Specimens identification mark	3D-1	3D-2	3D-3	
Weight in air g	807.8	794.6	805.3	
Nominal size, mm	70.7	70.7	70.7	
Load at failure, kN	311.9	295.8	321.9	
Compressive strength MPa	62.4	59.2	64.4	
Mean compressive strength MPa	62			
Mode of failure	N	N	N	

Mode of failure Legend:

A - Asymmetric failure;

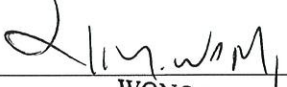
B - Brittle failure;

N - Normal failure;

P - Plastic deformation.

- Remarks :
1. Loading rate is 45 MPa/min.
 2. Test result relates to the specimen tested only.
 3. Type of machine used for the test: Compression testing machine

Checked by:  WONG CHUN KIT
Laboratory Supervisor

Certified by:  WONG KA MAN
Senior Manager

End of Report

Test Report**Repair Mortar - Compressive Strength of Repair Mortar Cubes**

(HKHA MTS (2012/2014) for Maintenance & Building Materials Specification Part D Cl. 2.1.1 and BS 6319 : Part 2 : 1983)

Date of issue: 08-01-2020

Page 1 of 1 page

Castco LRN: MR0190909-20

Sample details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's Ref. No. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Job title: Material Testing

Work order No.: --

Location in work: --

Contract No.: --

Sample Description : webertec non shrink grout GP

Batch No.: --

Manufacturer: --

Mix Proportions: W/C ratio = 14%

Brand name: Saint-Gobain Weber

Sample from : manufacturer's complete pre-measured sample pack

Date cast: 20-09-2019

Specimens to be test at: 7 days

No. of specimen cast: 3 nos

Identification mark: 7D-1,2,3

Nominal size of specimens: 70.7 mm cube

Test Certificate for making test specimens : not attached

Laboratory Test Result

Date received: 09-09-2019

Date of test started: 20-09-2019

Date of test completed: 27-09-2019

A. Preparation of test specimen

Sample preparation location : In laboratory

Conditioning of materials before mixing : (In Laboratory) : Condition at $20 \pm 1^\circ\text{C}$ for a minimum of 16 hours

Method of mixing : By mixer

Curing of specimens after mixing : (In Laboratory) : Cure at $27 \pm 2^\circ\text{C}$, $55 \pm 5\%$ relative humidityPre-curing of specimens : Maintain the specimens at $20 \pm 1^\circ\text{C}$ for not less than 16 hrs before testing commences**B. Determination of Compressive Strength**

Age of specimen at test : 7 days

Ambient Temperature : 20.6°C

RFID Tag no.	--	--	--	
Specimens identification mark	7D-1	7D-2	7D-3	
Weight in air	g	793.1	793.4	801.3
Nominal size,	mm	70.7	70.7	70.7
Load at failure,	kN	355.3	375.7	374.2
Compressive strength	MPa	71.1	75.2	74.9
Mean compressive strength	MPa	74		
Mode of failure		N	N	N

Mode of failure Legend:

A - Asymmetric failure;

B - Brittle failure;

N - Normal failure;

P - Plastic deformation.

- Remarks :
1. Loading rate is 45 MPa/min.
 2. Test result relates to the specimen tested only.
 3. Type of machine used for the test: Compression testing machine

Checked by:  WONG CHUN KIT
Laboratory SupervisorApproved Signatory: **End of Report**WONG KA MAN
Senior Manager

Test Report

Repair Mortar - Compressive Strength of Repair Mortar Cubes

(HKHA MTS (2012/2014) for Maintenance & Building Materials Specification Part D Cl. 2.1.1 and BS 6319 : Part 2 : 1983)

Date of issue: 08-01-2020

Page 1 of 1 page

Castco LRN: MR0190909-21

Sample details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's Ref. No. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Job title: Material Testing

Work order No.: --

Location in work: --

Contract No.: --

Sample Description : webertec non shrink grout GP

Batch No.: --

Manufacturer: --

Brand name: Saint-Gobain Weber

Mix Proportions: W/C ratio = 14%

Sample from : manufacturer's complete pre-measured sample pack

Date cast: 20-09-2019

Specimens to be test at: 28 days

No. of specimen cast: 3 nos

Identification mark: 28D-1,2,3

Nominal size of specimens: 70.7 mm cube

Test Certificate for making test specimens : not attached

Laboratory Test Result

Date received: 09-09-2019

Date of test started: 20-09-2019

Date of test completed: 18-10-2019

A. Preparation of test specimen

Sample preparation location : In laboratory

Conditioning of materials before mixing : (In Laboratory) : Condition at 20 ± 1°C for a minimum of 16 hours

Method of mixing : By mixer

Curing of specimens after mixing : (In Laboratory) : Cure at 27 ± 2°C, 55 ± 5% relative humidity

Pre-curing of specimens : Maintain the specimens at 20 ± 1°C for not less than 16 hrs before testing commences

B. Determination of Compressive Strength

Age of specimen at test : 28 days

Ambient Temperature : 20.2 °C

RFID Tag no.	--	--	--	
Specimens identification mark	28D-1	28D-2	28D-3	
Weight in air g	785.2	782.8	782.5	
Nominal size, mm	70.7	70.7	70.7	
Load at failure, kN	402.0	383.2	356.8	
Compressive strength MPa	80.4	76.7	71.4	
Mean compressive strength MPa	76			
Mode of failure	N	N	N	

Mode of failure Legend:

A - Asymmetric failure;

B - Brittle failure;

N - Normal failure;

P - Plastic deformation.

- Remarks :
1. Loading rate is 45 MPa/min.
 2. Test result relates to the specimen tested only.
 3. Type of machine used for the test: Compression testing machine

Checked by:

WONG CHUN KIT
Laboratory Supervisor

Approved Signatory:

End of Report

WONG KA MAN
Senior Manager

Test Report**Grout - Early Change in Height**
[ASTM C827-95a (Reapproved 1997)]

Date of issue : 08-01-2020

Page 1 of 3 pages

Castco LRN: MR0190909-17

Details as supplied by customer

Customer: Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's ref. no.: --

Address: No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Works order no.: --

Job title : Material Testing

Contract no.: --

Sample Description : webertec non shrink grout GP

Location of sample in works: --

Identification of sample : --

Serial No.: --

Manufacturer : --

Batch No.: --

Brand : Saint-Gobain Weber

Mix proportions : W/C ratio = 14%

Laboratory Test Result

Date of sample received : 09-09-2019

Date of test started : 20-09-2019

Date of test completed : 20-09-2019

A. Preparation of mixtures

Measured temperature of materials before mixing : 21.5 °C

Method of mixing: By mixer

Mixing time : 5 mins.

Time interval from completion of mixing to start of test: 1 min.

B. Determination of Change in Height at Early Ages

Ambient temperature / relative humidity : 23.2 °C / 57 %RH

Specimen	Diameter (mm)	Initial height (mm)	Magnification of lens system
A	51	102	104
B	51	102	104

Change in Height (%)			
Time (mins)	Specimen A	Specimen B	Average
0	0.00	0.00	0.00
5	1.07	1.06	1.07
10	1.62	1.58	1.60
15	1.92	1.87	1.90
20	2.15	2.07	2.11
25	2.38	2.30	2.34
30	2.51	2.47	2.49
35	2.71	2.64	2.68
40	2.92	2.87	2.90
45	3.04	2.96	3.00
50	3.17	3.11	3.14

Change in Height (%)			
Time (mins)	Specimen A	Specimen B	Average
55	3.28	3.22	3.25
60	3.37	3.30	3.34
65	3.45	3.37	3.41
70	3.53	3.45	3.49
75	3.60	3.54	3.57
80	3.64	3.60	3.62
85	3.70	3.64	3.67
90	3.73	3.70	3.72
100	3.75	3.70	3.73
110	3.75	3.70	3.73
120	3.73	3.66	3.70

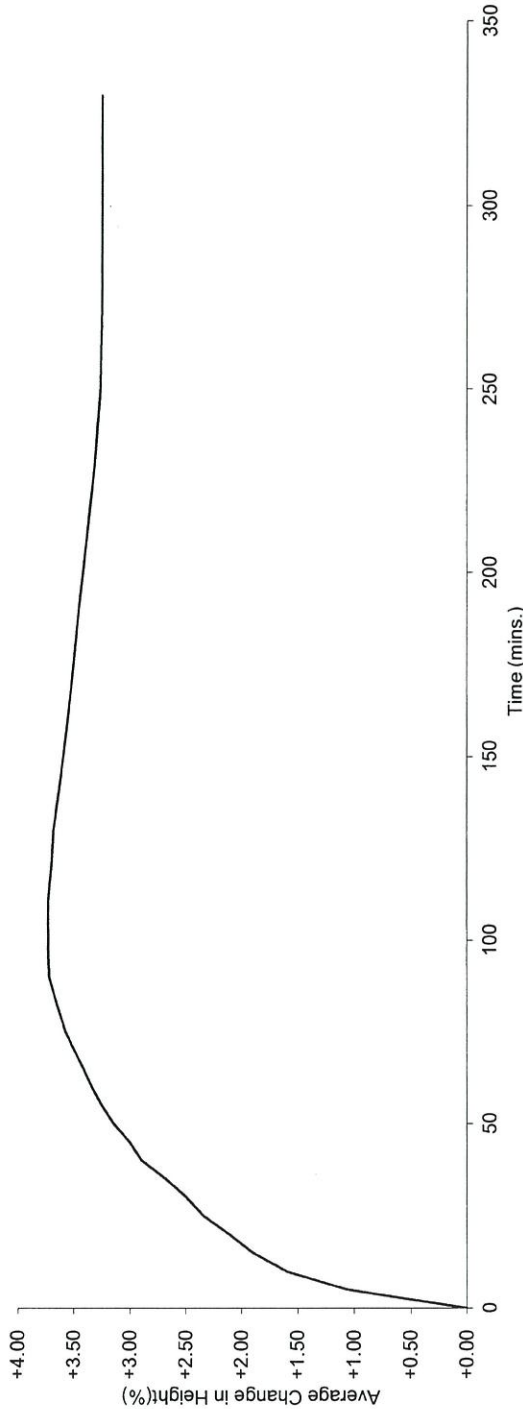
Test Report

Grout - Early Change in Height [ASTM C827-95a (Reapproved 1997)]

Date of issue: 08-01-2020


Page 3 of 3 pages

Castco LRN: MR0190909-17



Remarks: 1. Positive (+) for increase in height and negative (-) for decrease in height.
2. Test result relates only to the specimen tested

Checked by:  **WONG CHUN KIT**
Laboratory Supervisor

Approved Signatory:  **WONG KA MAN**
Senior Manager

End of Report

Form No. GROUT Change_H_TAI dd 13/03/2018

/04

Test Report
Grout - Changes in Height
(ASTM C1090-96)Date of issue : 08-01-2020
Page 1 of 1 page

Castco LRN : MR0190909-22

Details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's ref. no. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Works order no. : --

Job title: Material Testing

Contract No. : --

Sample Description : webertec non shrink grout GP

Batch no. : --

Location of sample in works : --

Identification of sample : --

Manufacturer : --

Brand : Saint-Gobain Weber

Mix proportion : W/C ratio = 14%

Laboratory test result

Date of sample received : 09-09-2019

Date of test started : 20-09-2019

Date of test completed : 18-10-2019

Temperature of test specimen immediately after mixing : 32.1 °C

Temperature and relative humidity at which the test were performed : 23 ± 2 °C; ≥ 95 % RH

Age at test (days)	Changes in height (%)
1	0.00
3	0.00
14	0.00
28	0.00

Remarks : 1. Test results relate only to the specimen tested.

Checked by :


WONG CHUN KIT
 Laboratory Supervisor

Approved Signatory :

End of Report

WONG KA MAN
 Senior Manager



香港粉嶺安居街33號
香港粉嶺安全街29A號
E-mail: info@castco.com.hk

33, On Kui Street, Fanling, Hong Kong. Tel: 2597 8333
29A, On Chuen Street, Fanling, Hong Kong. Fax: 2597 8399
Website: www.castco.com.hk

Test Report
Grout - Setting Time
[ASTM C953-87 (Reapproved 1997)]

Date of issue : 08-01-2020

Page 1 of 2 pages

Castco LRN: MR0190909-25

Details as Supplied by Customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's ref. no. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Contract No. : --

Job title: Material Testing

Works order no. : --

Sample Description : webertec non shrink grout GP

Location of sample in works : --

Identification of sample : --

Brand : Saint-Gobain Weber

Manufacturer : --

Serial no. : --

Mix proportion : W/C ratio = 19%

Batch no. : --

Laboratory Test Result

Date of sample received : 09-09-2019

Date of test started : 23-11-2019

Date of test completed : 23-11-2019

Temperature of test specimen immediately after mixing : 31.6 °C

Curing in chamber : 23 ± 2 °C ; ≥95% RH

Initial Setting Time	4 hours 30 minutes
Final Setting Time	5 hours 30 minutes

Remarks :

1. Test results relate only to the specimen tested.
2. A plot of penetration resistance versus elapsed time was attached.

Checked by : _____

WONG CHUN KIT
Laboratory Supervisor

Approved Signatory : _____

WONG KA MAN
Senior Manager

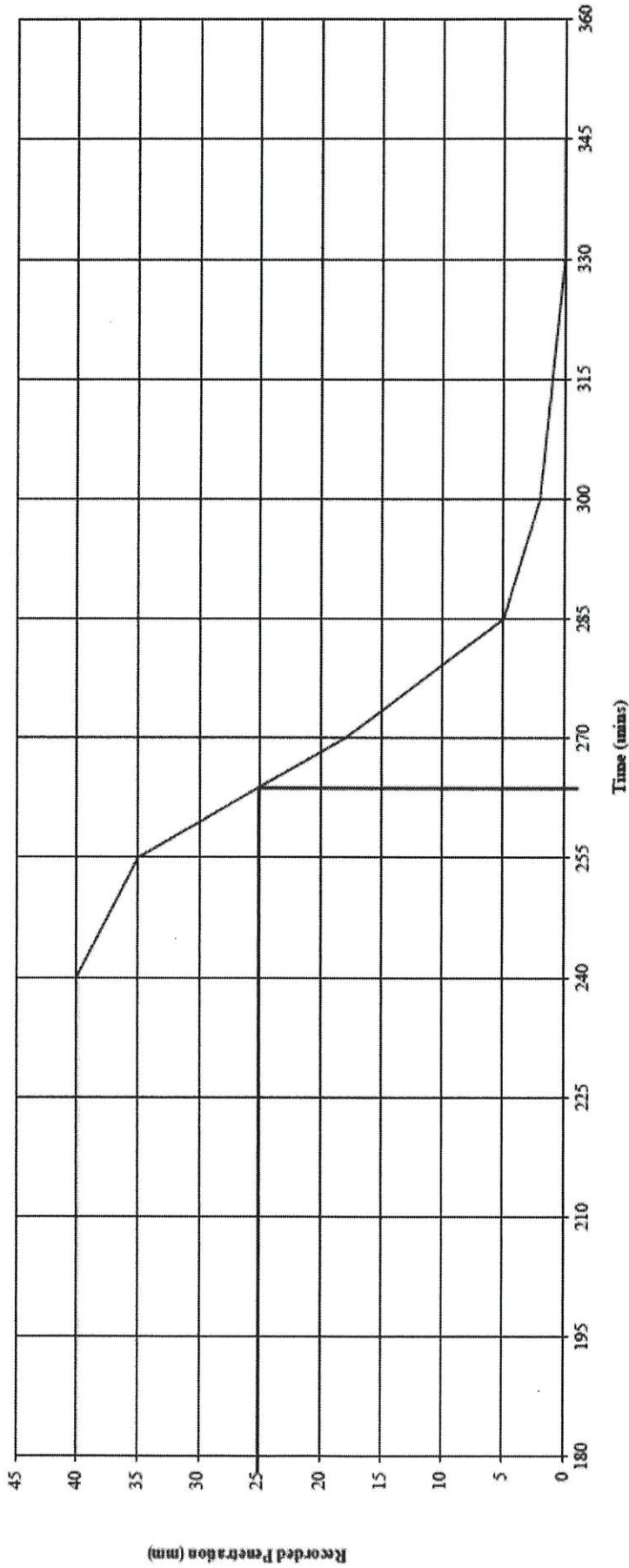
Test Report**Grout - Setting Time**

[ASTM C953-87 (Reapproved 1997)]

Date of issue : 08-01-2020

Page 2 of 2 pages

Castco LRN: MR0190909-25

Penetration of 25mm Obtained by Interpolation**End of Report**

FORM NO. : GROUT-SET-T.dd 13/03/2018

/04



香港粉嶺安居街33號
 香港粉嶺安全街29A號
 E-mail: info@castco.com.hk

佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED
 33, On Kui Street, Fanling, Hong Kong. Tel : 2597 8333
 29A, On Chuen Street, Fanling, Hong Kong. Fax: 2597 8399
 Website: www.castco.com.hk



Test Report
Grout - Setting Time
 [ASTM C953-87 (Reapproved 1997)]

Date of issue : 08-01-2020

Page 1 of 2 pages

Castco LRN: MR0190909-15

Details as Supplied by Customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's ref. no. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Contract No. : --

Job title: Material Testing

Works order no. : --

Sample Description : webertec non shrink grout GP

Location of sample in works : --

Identification of sample : --

Brand : Saint-Gobain Weber

Manufacturer : --

Serial no. : --

Mix proportion : W/C ratio = 14%

Batch no. : --

Laboratory Test Result

Date of sample received : 09-09-2019

Date of test started : 20-09-2019

Date of test completed : 20-09-2019

Temperature of test specimen immediately after mixing : 32.1 °C

Curing in chamber : 23 ± 2 °C ; ≥95% RH

Initial Setting Time	1 hour 30 minutes
Final Setting Time	3 hours 30 minutes

Remarks :

1. Test results relate only to the specimen tested.
2. A plot of penetration resistance versus elapsed time was attached.

Checked by : _____

WONG CHUN KIT
 Laboratory Supervisor

Approved Signatory : _____

WONG KA MAN
 Senior Manager

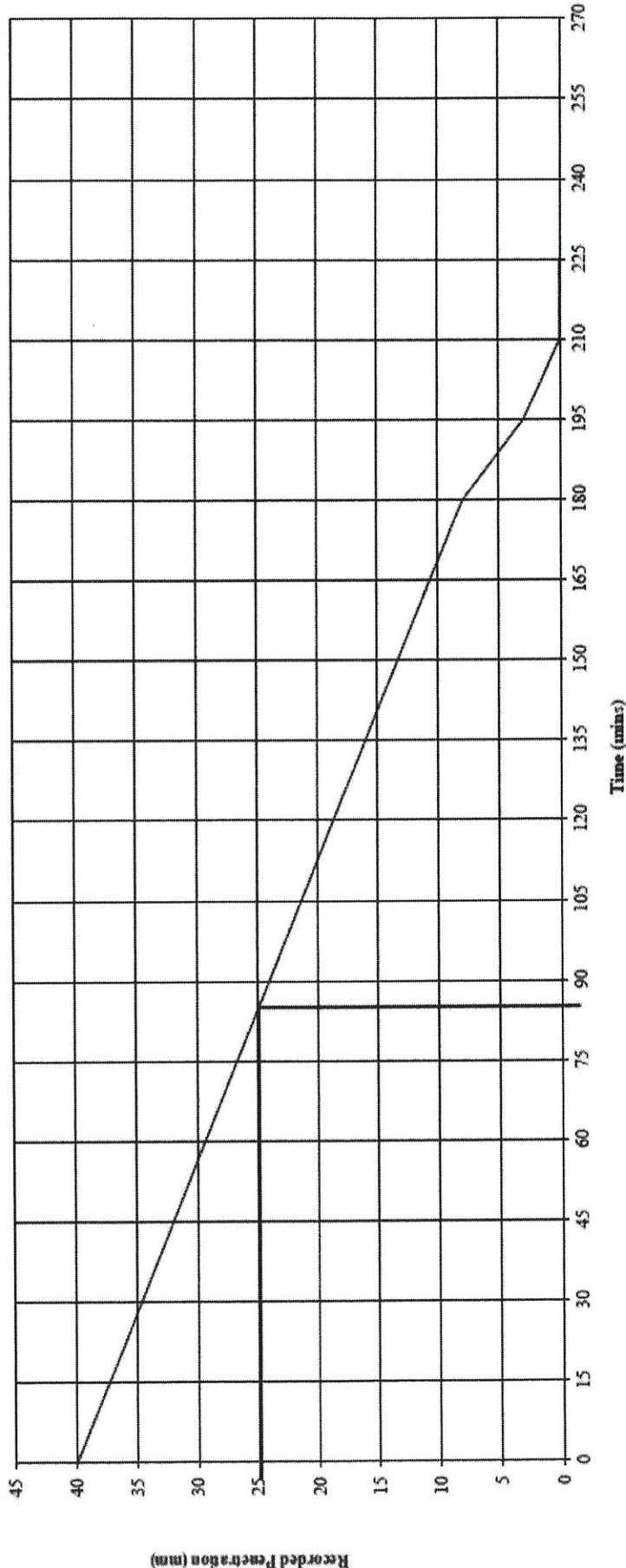
Test Report**Grout - Setting Time**

[ASTM C953-87 (Reapproved 1997)]

Date of issue : 08-01-2020

Page 2 of 2 pages

Castco LRN: MR0190909-15

Penetration of 25mm Obtained by Interpolation**End of Report**

Test Report**Grout - Expansion and Bleeding of Freshly Mixed Grout for Preplace – Aggregate Concrete**
[ASTM C940-98a]

Date of issue: 08-01-2020

Page 1 of 2 pages

Castco LRN : MR0190909-16

Details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's ref. no. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Contract No. : --

Job title: Material Testing

Location of sample in works : --

Serial no. : --

Identification of sample : Sample Description : webertec non shrink grout GP

Manufacturer / Supplier: --

Brand / Plant : Saint-Gobain Weber

Batch no. / Docket no. : --

Mix proportions : W/C ratio = 19%

Laboratory / Field test result

Sample was mixed : In laboratory by Castco

Temperature of prepare materials : 21.5 °C

Date of test : 23-11-2019

Temperature of grout sample at start of test : 31.6 °C

Time of mixing : 14:20

Ambient temperature at the beginning of test : 23.2 °C

Time of Completion of mixing : 14:25

Ambient temperature at the end of test : 23.5 °C

Time of test started : 14:27

Specimen no. : 1

Pipet / Medicine dropper I.D. no. : CEME-GCYL-028

Glass cylinder I.D. no. : CEME-GC-02

Thermometer I.D. no. : RNDT-DTM-01

Timer I.D. no. : RNDT-STW-01

Note : -

$$\text{Expansion, \%} = \frac{V_g - V_1}{V_1} \times 100$$

$$\text{Bleeding, \%} = \frac{V_2 - V_g}{V_1} \times 100 \text{ at prescribed intervals}$$

$$\text{Combined Expansion, \%} = \frac{V_2 - V_1}{V_1} \times 100$$

$$\text{Final bleeding, \%} = \frac{V_w}{V_1} \times 100$$

Remark(s) : -

1. Test result relate only to the specimens tested.

Test Report

Grout - Expansion and Bleeding of Freshly Mixed Grout for Preplace – Aggregate Concrete [ASTM C940-98a]

Date of issue: 08-01-2020

Page 2 of 2 pages

Castco LRN : MR0190909-16

Laboratory / Field test result (con't)

Time after start (hr : min)	Reading of Grout by Volume (mL)	Reading of Bleeding by Volume (mL)	Expansion of grout by (%)	Bleeding of grout by (%)	Combined expansion (%)
			$\frac{V_g - V_1}{V_1} \times 100$	$\frac{V_2 - V_g}{V_1} \times 100$	$\frac{V_2 - V_1}{V_1} \times 100$
to the nearest 0.2%					
0 : 00	V ₁ : 800	V ₁ : 800	0.0	0.0	0.0
0 : 15	V _g : 800	V ₂ : 800	0.0	0.0	0.0
0 : 30	V _g : 800	V ₂ : 800	0.0	0.0	0.0
0 : 45	V _g : 800	V ₂ : 800	0.0	0.0	0.0
1 : 00	V _g : 802	V ₂ : 802	0.2	0.0	0.2
2 : 00	V _g : 804	V ₂ : 804	0.6	0.0	0.6
3 : 00	V _g : 805	V ₂ : 805	0.6	0.0	0.6
4 : 00	V _g : 805	V ₂ : 805	0.6	0.0	0.6
5 : 00	V _g : 805	V ₂ : 805	0.6	0.0	0.6
Bleeding water reabsorbed by the grout within 24hours after mixing. (If request by customer)					
≤ 24 hours				--	
V _w (nearest to 0.5mL)	0.0		Final Bleeding (%), $V_w / V_1 * 100$		0.0

Note : 1. The test should be finish thereafter at hourly intervals until two successive readings show no further expansion or bleeding.
2. V_w = volume of decanted bleed water, mL

Checked by :

WONG CHUN KIT
Laboratory Supervisor

Approved signatory :

WONG KA MAN
Senior Manager

End of Report

Form No. GROUT EXP_BLE T1 dd 18/08/2018

Test Report

Repair Mortar - Bond Strength of Repair Mortar systems

[HKHA MTS (2012/2014) for Maintenance & Building Materials Specification Part D Cl. 2.1.14 and BS 6319 : Part 7 : 1985]

Date of issue : 08-01-2020

Page 1 of 1 page(s)

Castco LRN : MR0190909-23

Details as supplied by customer :

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Job title : Material Testing

Sample Description : webertec non shrink grout GP

Manufacturer : --

Mix proportion : W/C ratio = 14%

Type of bond coat : webertec bond coat : O.P.C. = 1:1 (by mass)

Customer's ref. no.: --

Work order No.: --

Contract No. : --

Brand name : Saint-Gobain Weber

Batch No. : --

Identification of sample : --

Laboratory test results :

Date sample received : 09-09-2019

Date of test started : 20-09-2019

Date of test completed : 27-09-2019

A. Preparation of dumb-bell briquette test specimen (Mortar as provided by laboratory)

Conditioning of materials before mixing : In Laboratory : Condition at $20 \pm 1^\circ\text{C}$ for a minimum of 16 hours.

Method of mixing : By mixer

Curing of specimens after mixing : In Laboratory : Cure at $27 \pm 2^\circ\text{C}$, $55 \pm 5\%$ relative humidity

Pre-curing of specimens : Maintain the specimens at $20 \pm 1^\circ\text{C}$ for not less than 16 hrs before testing commences

B. Determination of Tensile Strength

Age of specimen at test : 28 days

Ambient Temperature : 20.6°C

Specimen No.	T1	T2	T3	T4	HKHA MTS Specification, Part D clause 2.1.14
Mean cross-sectional area of central portion (mm ²)	657.86	660.45	660.40	657.90	
Mass of specimen (g)	152.9	153.8	153.5	153.0	
Breaking load (kN)	2.85	2.90	2.97	2.96	Tensile strength : > 4 MPa
Line of fracture	Inside the middle-third of specimen	Inside the middle-third of specimen	Inside the middle-third of specimen	Inside the middle-third of specimen	
Tensile strength of valid test specimen (MPa)	4.3	4.4	4.5	4.5	
Visible defects on surface of test specimen and in the failure plane	NIL	NIL	NIL	NIL	
Mean tensile strength (MPa)	4.4				

C. Preparation of repaired briquette half test specimen (Mortar under test)

Sample preparation location : In laboratory

Conditioning of materials before mixing : In Laboratory : Condition at $20 \pm 1^\circ\text{C}$ for a minimum of 16 hours.

Method of mixing : By mixer

Curing of specimens after mixing : In Laboratory : Cure at $27 \pm 2^\circ\text{C}$, $55 \pm 5\%$ relative humidity

Pre-curing of specimens : Maintain the specimens at $20 \pm 1^\circ\text{C}$ for not less than 16 hrs before testing commences

D. Determination of Bond Strength (Broken briquette primed with appropriate bond as supplied by customer)

Age of specimen at test : 7 days

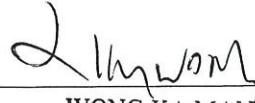
Ambient Temperature : 20.5°C

Specimen No.	B1	B2	B3	B4
Mean cross-sectional area of central portion (mm ²)	683.52	686.08	660.45	657.90
Mass of specimen (g)	152.9	153.3	153.1	152.5
Breaking load (kN)	1.53	1.70	1.54	1.64
Line of fracture	Inside the middle-third of specimen	Inside the middle-third of specimen	Inside the middle-third of specimen	Inside the middle-third of specimen
Bond strength of valid test specimen (MPa)	2.2	2.5	2.3	2.5
Visible defects on surface of test specimen and in the failure plane	NIL	NIL	NIL	NIL
Failure mode (See Legend)	B(100%)	A(30%),B(70%)	A(20%),B(80%)	B(100%)
Mean bond strength (MPa)	2.4			

Legend : A. Failure occurred at tested mortar B. Failure occurred at interface between tested mortar and parent mortar C. Failure occurred at parent mortar

Remark(s) : Test result relates only to the specimen tested.

Checked by :  WONG CHUN KIT
Laboratory Supervisor

Approved Signatory : 
WONG KA MAN
Senior Manager

End of Report

Test Report**Chemical Analysis of Chloride Content of Non Shrink Grout**

Date of issue: 01-11-2019

Page 1 of 2

Castco LRN: MO0191008-5

Details as supplied by customer

Name of Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Job Title : Material Testing

Contract No. : --

Customer's Ref. No. : --

Sample details as supplied by customer

Date Sampled : --

Date of Sample Received : 08-10-2019

Test Period : 25-10-2019

Sample Description : webertec non shrink grout GP

Brand Name : Saint-Gobain Weber

Received Conisition : Freshly casted

Test Method(s):-

1) BS 1881:Part 124:1988 Cl. 10.2

Remark:

I. Test results only relate to the specimen tested.

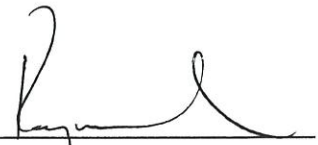
Checked by :



Lau Hiu Yat

Assistant Technical Manager

Certified by :



Cheng Chi Fai

Senior Manager

Form No.: CHM TR T dd 03/02/2016

Test Report**Chemical Analysis of Chloride Content of Non Shrink Grout**

Date of issue: 01-11-2019

Page 2 of 2

Castco LRN: MO0191008-5

Chemical Analysis	Result
1) Chloride Ion Content Cl⁻ %	0.01

End of Report

Form No.: CHM TR T dd 03/02/2016

Test Report**Repair Mortar - Air Permeability****[HKHA MTS (2012/2014) for Maintenance & Building Materials Specification Part D C1.2.1.7 and
Improvements to the Figg Method for the Air Permeability of Concrete by Cather, Figg, Mansden and
O'Brien . Mag. Conc. Res 36 No. 129 Dec 1984]**

Date of issue : 08-01-2020

Page 1 of 1 page

Castco LRN : MR0190909-24

Details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer's ref. no. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Works order no. : --

Job title : Material Testing

Contract no. : --

Sample Description : webertec non shrink grout GP

Brand name : Saint-Gobain Weber

Identification of sample : --

Batch No. : --

Manufacturer : --

Mix proportions W/C ratio = 14%

Laboratory test result

Date of sample received : 09-09-2019

Date of test started : 20-09-2019

Date of test completed : 25-10-2019

A. Preparation of test specimens

Nominal dimension of cube specimens	Method of mixing	Curing condition (in chamber)	Drying condition (in oven)
100 x 100 x 100mm	By mixer	27 ± 2°C, 55 ± 5%	50 °C

B. Modified Figg test

Specimen no.	Time recorded for pressure change from 55 kPa to 50 kPa below atmospheric pressure (sec)
1	484
2	460
3	481
Average	475

Remark : 1. Test results relate only to the specimen tested.

Checked by :


WONG CHUN KIT
 Laboratory Supervisor

Approved Signatory :


WONG KA MAN
 Senior Manager
End of Report



佳力高試驗中心有限公司
CASTCO TESTING CENTRE LIMITED

香港粉嶺安居街33號
香港粉嶺安全街29A號
E-mail: info@castco.com.hk

33, On Kui Street, Fanling, Hong Kong. Tel : 2597 8333
29A, On Chuen Street, Fanling, Hong Kong. Fax: 2597 8399
Website: www.castco.com.hk



Test Report
Grout - Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)
[ASTM C939-97]

Date of issue: 30-06-2020

Page 1 of 1 pages

Castco LRN : MR0200507-1

Details as supplied by customer

Customer : Saint-Gobain Weber (Hong Kong) Building Material Company Limited

Customer ref. no. : --

Address : No. 7 Wang Lok Street, Yuen Long Industrial Estate, Yuen Long, N.T.

Contract no. : --

Job title: Material Testing

Description of sample : webertec non shrink grout GP

Location of sample in works : --

Identification of sample : --

Serial no. : --

Manufacturer / Supplier : --

Brand / Plant : Saint-Gobain Weber

Batch no. / Docket no. : --

Mix proportion : W/C ratio = 19%

Laboratory test result :

Date of sample received : 07-05-2020

Date of test started : 14-05-2020

Sample is Laboratory-prepared

Time of completion of mixing : 14:38

Time of test started : 14:38

Temperature of test specimen immediately after mixing : 30.0 °C

Ambient temperature at start of test : 23.1 °C

Time interval of test : 1 min


Time interval of test other than 1min. after mixing as requested by customer : --

Time of efflux of grout (sec)		Average time of efflux of grout (Flow Consistency) (sec)
Test 1	Test 2	
22.31	23.46	22.8

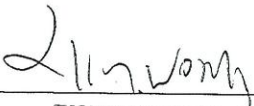
Remarks :

1. Test results relate only to the specimen tested.
2. The test was carried out at the ambient temperature of the sample as agreed with the customer.

Checked by :


WONG CHUN KIT
Laboratory Supervisor

Approved signatory :


WONG KA MAN
Senior Manager

End of Report

Form No. GROUT FLOW COT(H) dd 18/08/2018