

RE: Site Testing Policy (Update August 2023)

Dear Valued Customer,

Thank you for your business and usage of Hilti's on-site testing service of Hilti Mechanical and Hilti Chemical Anchors. Please note this policy supersedes all previous site testing policies.

Hilti's policy for site testing is as follows:

- Hilti only offers site testing for Hilti Mechanical and Hilti Chemical Anchors noted in Table 4
 of this policy. All other products are excluded.
- All requests for site testing must be booked via Hilti online booking platform located at Onsite Testing - Hilti Singapore
- The required load applied (i.e. proof load) to be tested must be provided by customer 2 business days prior to testing date. Hilti recommends seeking guidance from the Qualified Person or Engineer of Record to determine the required load applied. Please refer to SS EN1992-4 for more details, specifically on the recommendation of proof load value to be taken as 1.5 x Characteristic Action. For more details regarding this topic, please refer to BCA circular from December 2022 (attached to this letter)
- On-site tests of fasteners do not: evaluate suitability or adequacy of the fastener design; verify proper installation or compliance with approval requirements; establish ultimate capacity of tested fasteners; or address performance of untested fasteners. Testing is performed as a service by Hilti in support of its products, and is intended solely to provide information on the general suitability of the base material and/or assist in identification of gross installation errors of tested fasteners it does not imply any agreement in or endorsement of the suitability or propriety of the test or the application.
- Given destructive testing is dangerous, special considerations must be taken. As such, booking of destructive testing must be notified on the booking platform located at <u>Onsite</u> <u>Testing</u> - <u>Hilti Singapore</u>
- Refer to the Hilti Fastening Technology Manual or the appropriate approval document for information on fastener design and performance. Proper installation of fasteners is critical – training is available on request – contact Hilti for information.
- Site training concerning the installation of anchors can be provided if required before the tests are carried out. The customer must install chemical anchors for test at least t_{cure} before the testing is due to commence, see the packaging /Technical literature for the applicable t_{cure} at the appropriate temperature.
- Any calculation or assessment by Hilti is based solely on the test results and performed according to the indicated calculation standard. It is the Customer's sole responsibility to

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determine whether the test data, calculation, assessment, and design standard are suitable and adequate for their specific jurisdiction and project. If no evaluation of data is provided, it is the Customer's sole responsibility to determine if the results obtained meet their requirements.

- Hilti shall not be held liable for any loss or damage arising out of or in connection with the provision of the site testing services.
- All requests will be assigned a testing slot and booking ID via email. Testing slots are subject to availability during normal business hours. See **Table 1** for applicable slots.
- The normal operational hours are Monday to Friday, 9:30 a.m. to 5:30 p.m, excluding holidays. Any request for testing slot outside of the normal operational hours is considered overtime.
- All normal operational testing slots will result in a charge of SGD 600 per slot.
- All overtime requests will result in a charge of SGD 300 per hour and minimum 2 hours booking required. After 2 hours, any additional time will result in a charge of SGD 150 per half hour or any part thereof. See below **Table 2**.
- For any testing slot resulting in a charge, an approved Purchase Order must be submitted to Hilti 2 business days prior to testing being conducted, otherwise testing slot will be forfeited and must be rebooked.
- No refunds will be given under any circumstance unless written communication is provided to Hilti by 2 p.m. on the normal business day prior. Written communication must be via email addressed to <u>teamengineering.sg@hilti.com</u> and contain booking ID in the subject line. Rebooking is subject to availability.
- Any charges can be waived at Hilti's discretion.
- Charges exclude applicable GST.
- Due to various site conditions, anchor types, and embedment depths, the quantity of tests that can be performed in a given testing slot varies. However, refer to **Table 3** for the maximum number of tests that can be expected in a given testing slot.

In order for Hilti to provide a safe environment for our employees as well as be efficient in testing the maximum number of Hilti anchors during a testing slot, the following conditions must be met:

- Safe access to and from testing location shall be provided. This includes working platform, scaffolding, boom lift, cherry picker, and anything else deemed safe by Hilti.
- Please ensure all relevant parties/authorities are present at the booked time of testing.
- Please ensure that anchors/rebar to be tested are accessible and free from obstruction.
- Please ensure parking of Hilti vehicle is available on site or within 5 minute walk to testing location.

Failure to meet any of the above policies and conditions may result in limiting the number of testing points or cancellation of testing slot.



If you require further information and details, including terms and conditions, please contact Customer Service at +65 6777 7887.

Sincerely, Hilti Far East Private Limited

Phillip Pierce

Head of Engineering



Table 1: Normal operational testing slots				
Testing slot name	Time of day	Duration	Charge SGD	
Slot 1	9:30 a.m 11:30 a.m.	120 minutes		
Slot 2	1:00 p.m 3:00 p.m.	120 minutes	\$600	
Slot 3	3:30 p.m 5:30 p.m.	120 minutes		

Table 2: Overtime operational testing slots			
Testing slot name	Charge SGD		
2 hour slot (mandatory)	\$600		
Additional 30 minutes	\$150		

Table 3: Estimation of maximum tests in a 2-hour slot			
Mechanical anchor diameter	Recommended maximum tests		
M8	10		
M10			
M12			
M16	8		
M20			
M22	9		
M24	6		
M27			
M30	4		
Rebar diameter	Recommended maximum tests		
T10			
T13	8		
T16			
T20	6		
T25	5		
T32			
T40	3		

Table 4: Testable anchors				
Anchor name				
HVU-TZ	HKD			
HVU2	HLC			
HDA	HAC			
HSL3-G-R	RE 100			
HSC-IR	RE 500 V3			
HSC-A	RE 500 V4			
HST 3	HY 170			
HSA	HY 200			
HUS 3	HY 270			
HUS 4	HSL4-G			
HSB				

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