

**Test Report No. 7191238129-MEC20/03\_AD1-ED\_CR1**  
dated 22 Mar 2021



PSB Singapore

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**SUBJECT:**

Testing of sealant submitted by Hangzhou Zhijiang Silicone Chemicals Co., Ltd

**TESTED FOR:**

Finotech Switzerland AG  
Talacherring 6a  
8103 Unterengstringen  
Switzerland

Attn: Mr Joerg Szybalski

**SAMPLE DESCRIPTION:**

1. No physical test sample was submitted for testing 'Finotech® SQ-200' which is the subject of this additional test report.
2. This additional test report is not applicable for certification scheme application with any certification bodies.
3. The test results stated in this additional test report are based exclusively on the test results of a past submitted and tested sample reported in test report No. 7191238129-MEC20/03-ED\_CR1 dated 22 Mar 2021.
4. This additional test report is issued on the basis of the declaration by the customer that 'Finotech® SQ-200' which is the subject of this additional test report is exactly the same as the original sample provided for test report No. 7191238129-MEC20/03-ED\_CR1 dated 22 Mar 2021 in terms of technical specification and performance.
5. The details of the product, including name, brand, article number and any technical specification are solely provided by the client and no verification has been done by TÜV SÜD PSB Pte Ltd to whether such details are true and correct.
6. The detailed declaration by the client as follows:
  - company name: Hangzhou Zhijiang Silicone Chemicals Co., Ltd.
  - address: No. 1717 Century Avenue, Linjiang Industry Park, Xiaoshan Hangzhou, Zhejiang China
  - name of authorised person: Mr John Zhao
  - company telephone number: 18058736111
  - email address: john.zhao@chinazhijiang.com

Amendment (12 Jul 2021): Page 1 (SAMPLE DESCRIPTION & Photo 1) - brand name was changed  
Page 3 (TEST RESULTS) - brand name was changed



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TUV®



**TEST METHODS:**

Adopted ASTM C1184 : 2018 Standard Specification For Structural Silicone Sealants

Extrudability

1. Adopted ASTM C603 : 2014 (2019) Standard Test Method For Extrusion Rate And Application Life Of Elastomeric Sealants

Test pressure : 50 psi  
No. of determination : 1

Flow Properties

2. ASTM C639 : 2015 Standard Test Method For Rheological (Flow) Properties Of Elastomeric Sealants

Method : Test method for 'Type II' sealant  
Test conditions : a) 4.4°C in environmental chamber for 4 hours  
b) 50°C in oven for 4 hours  
No. of determinations : 2 for vertical and horizontal displacements

Hardness

3. ASTM C661 : 2015 Standard Test Method For Indentation Hardness Of Elastomeric-Type Sealants By Means Of A Durometer

Test Conditions:

a) 23°C and 50% relative humidity for 7 days  
b) 38°C and 95% relative humidity for 7 days  
c) 23°C and 50% relative humidity for 7 days  
No. of determinations : 2, 3 points per test piece

Tack-Free Time

4. ASTM C679 : 2015 Standard Test Method For Tack-Free Time Of Elastomeric Sealants

No. of determinations : 2

Effects Of Heat Ageing

5. ASTM C792 : 2015 (2020) Standard Test Method For Effects Of Heat Ageing On Weight Loss, Cracking, And Chalking Of Elastomeric Sealants

Test Conditions:

a) 23°C and 50% relative humidity for 7 days  
b) 70°C for 21 days  
No. of determinations : 3, 1 as control



Tensile Strength

6. Adopted ASTM C1135 : 2019 Standard Test Method For Determining Tensile Adhesion Properties Of Structural Sealants

Test Conditions:

- a. 23°C and 50% relative humidity for 21 days
  - b. 23°C and 50% relative humidity for 21 days and followed by 88°C for 1 hour
  - c. 23°C and 50% relative humidity for 21 days and followed by -29°C for 1 hour
  - d. 23°C and 50% relative humidity for 21 days and followed by water immersion at standard conditions for 1 week
  - e. 23°C and 50% relative humidity for 21 days and followed by UV exposure for 5000 hours:  
8 hours UV at 60°C, 4 hours condensation at 50°C, UVA 340 nm and 0.89 W/m<sup>2</sup>.nm
- Test specimen : Tensile test specimen assembly using glass substrates  
Grip length : 12.7 mm  
Crosshead speed : 50.8 mm/min  
No. of determinations : 5 per test condition

**CONDITIONING:**

Unless otherwise specified, all test specimens were tested at 23 ± 2°C and 50 ± 5% relative humidity. Standard Conditions parameters: 23 ± 2°C and 50 ± 5% relative humidity.

**TEST RESULTS:**

Test	'Finotech® SQ-200'	ASTM C1184 : 2018 Requirements For Physical, Mechanical, And Performance Qualities Of The Sealant
1. Extrudability	7.6 sec	10 sec maximum
2. Rheological (Flow) Properties	Vertical displacement: 0 mm sag Horizontal displacement: No deformation	Vertical 4.8 mm (3/16 in.) maximum Horizontal no deformation maximum
3. Indentation Hardness	test piece 1, average : 47.0 test piece 2, average : 47.4 average of 2 test pieces : 47.2	20 to 60
4. Tack-Free Time	1 hour and 30 mins No transfer of test specimens to the polyethylene film	no transfer in 3 h
5. Effects Of Heat Ageing On Weight Loss, Cracking And Chalking, average	1.2% No cracking and chalking	Weight Loss 10% maximum Cracking None Chalking None




**TEST RESULTS:**

Test	'Finotech® SQ-200'	ASTM C1184 : 2018 Requirements For Physical, Mechanical, And Performance Qualities Of The Sealant
6. Maximum Tensile Strength, average		
a. Standards conditions	830.4 kPa (120.4 psi)	a. Standards conditions 345 kPa (50 psi)
b. 88°C for 1 hour	792.2 kPa (114.9 psi)	b. 88°C (190°F) 345 kPa (50 psi)
c. -29°C for 1 hour	699.1 kPa (101.4 psi)	c. -29°C (-20°F) 345 kPa (50 psi)
d. Water immersion for 1 week	768.4 kPa (111.4 psi)	d. Water immersion 345 kPa (50 psi)
e. UV exposure for 5000 hours	1611.7 kPa (233.8 psi)	e. A minimum of 5000 h weathering 345 kPa (50 psi)

**REMARKS:**

1. The test conditions for tensile properties after UV exposure were adopted from ASTM G154 : 2016 Standard Practice For Operating Fluorescent Light Apparatus For UV Exposure Of Non-Metallic Materials.
2. The tests and test standard are specified by the client.
3. The type of substrate for tensile strength test is specified by the client.
4. The substrates did not require priming before application of the sealant as specified by the client.
5. The tests were conducted at No. 1 Science Park Drive, Singapore 118221 and 15 International Business Park, Singapore 609937.

  
Eddie Suwand  
Testing Officer  
Senior Associate Engineer

  
Lem Chee Meng  
Product Manager  
Real Estate & Infrastructure  
Mechanical Centre



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Effective 26 January 2021

