

Torsional Breaking Force Test Report, SMA3510MH

I. Customer

1. Client

Name : MEDIMECCA Co.,Ltd

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3-cha 104, 109, 110, 448, Gasan-dong)

2. Manufacturer

Name : MEDIMECCA Co.,Ltd

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II. File Information

Document Number : CDM-15-0032-06(E).hwp

Tester : Cheol-Hu Kim, Hye-Ju Jang

Date of Test : 2015-05-19

Environment of Test : Temperature 24 °C, Relative Humidity 42 %

III. Product Information

Item Name : implant, endosseous, superstructure, C20040.01, Class 2

Test Materials : implant, endosseous, superstructure

Product Name : ECTS420 including 1,880 models

Product Type	Model Number	Lot Number	Manufacture Date	Expiration Date
Abutment	SMA3510MH	MP1EFE80110014 ~ MP1EFE8011017 MP1EFE80110038	2015-02-12	-
Fixture	ASFS3016MS	MF1EFE50010026~ MF1EFE50010030	2015.02.12	2020.02.11

IV. Test Methods

1. Equipment

- Torque tester, Vortex-i, Mecmesin Co., U.K.

2. Procedure

- 1) The number of samples : 5
- 2) The fixture was fixed on lower jig of torque testing equipment.
- 3) The abutment was connected loosely to the fixture on the same axis using screw driver by a hands.
- 4) The screwdriver attached at abutment was fixed on upper jig of torque testing equipment, and it was careful for the axis not to be bend.
- 5) After the sample setting, the screwdriver was tightened until the deformation and fracture of the sample reached at a speed of 2° /min on clockwise(CW) with torque tester.

6) The max torque force(N·cm) was measured, and recorded as the torsional breaking force(N·cm).

V. Test Results

Results	Torsional Breaking Force	49.04 N·cm
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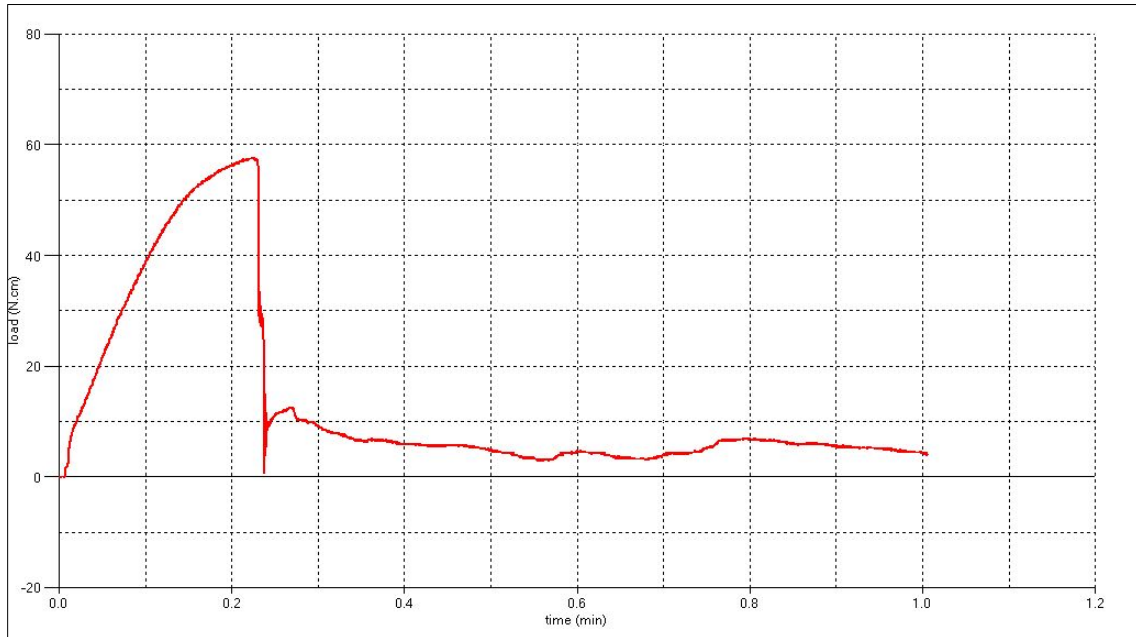
VI. Attachments

1. Test Results Summary

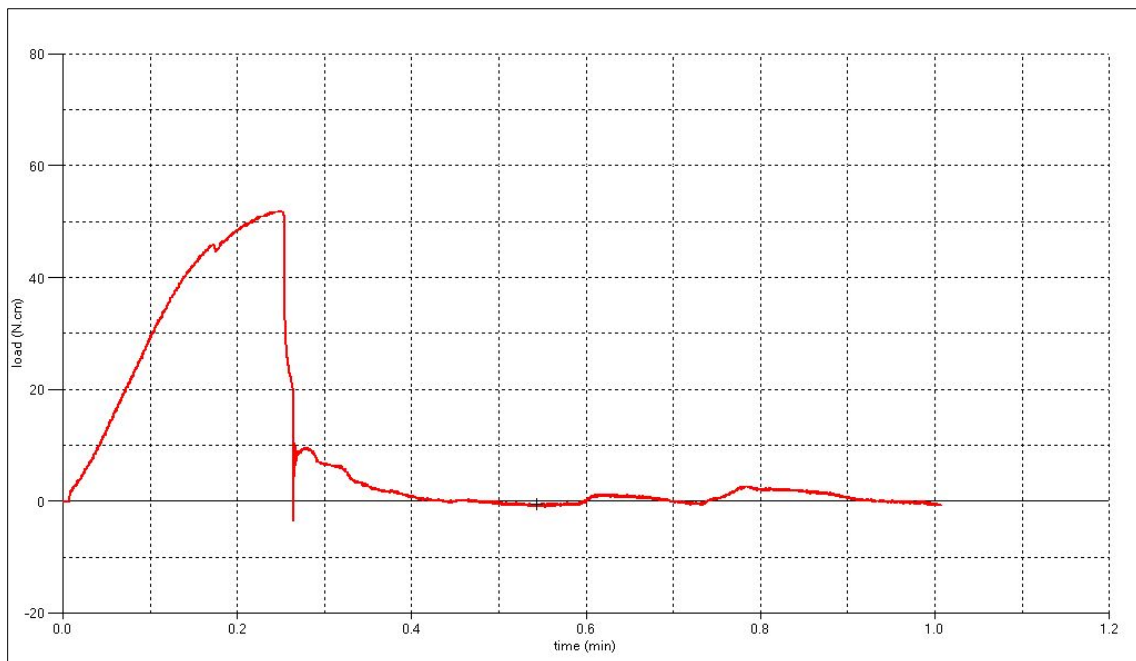
Torsional Breaking Force Test Result Summary

1. Test Results					
Results	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
1.1. Max torque force	57.8 N·cm	52.2 N·cm	54.6 N·cm	41.9 N·cm	38.7 N·cm
1.2. Breaking aspects	Screw fracture		Screw Hex deformation		
1.3. Mean	49.04 N·cm (SD: 8.30 N·cm, CV: 16.92 %)				
1.4. Requirement	Torsional breaking force shall be more than 120 % (36 N·cm) of stated value (30 N·cm).				
2. Conclusion					
2.1. Torsional Breaking Force	49.04 N·cm				

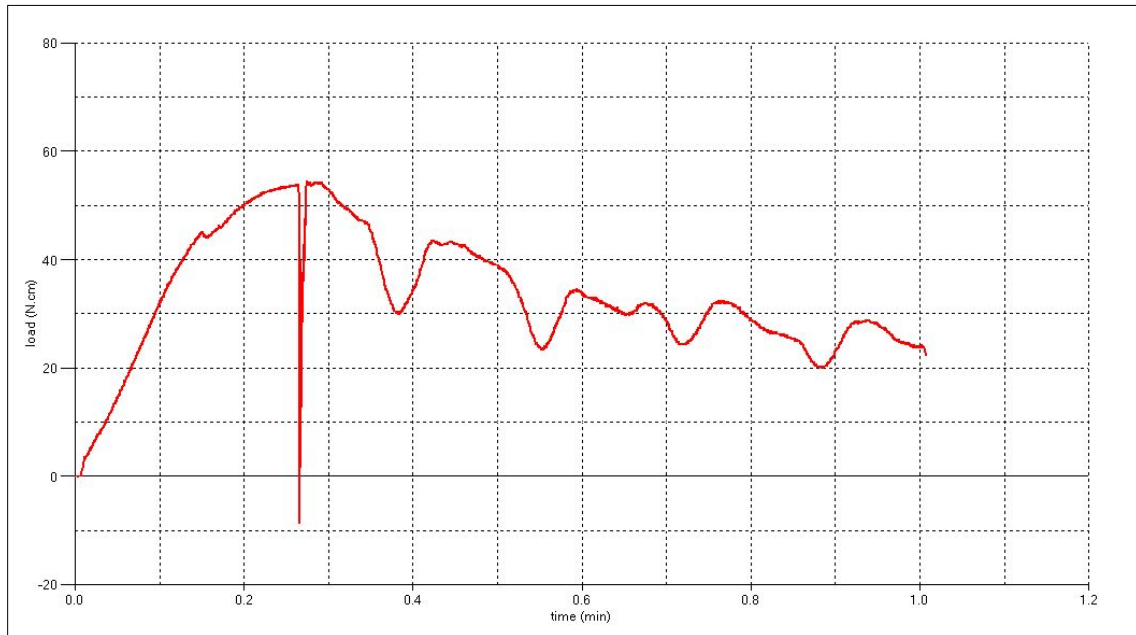
2. Torsional Breaking Force Graphs 5 Cuts



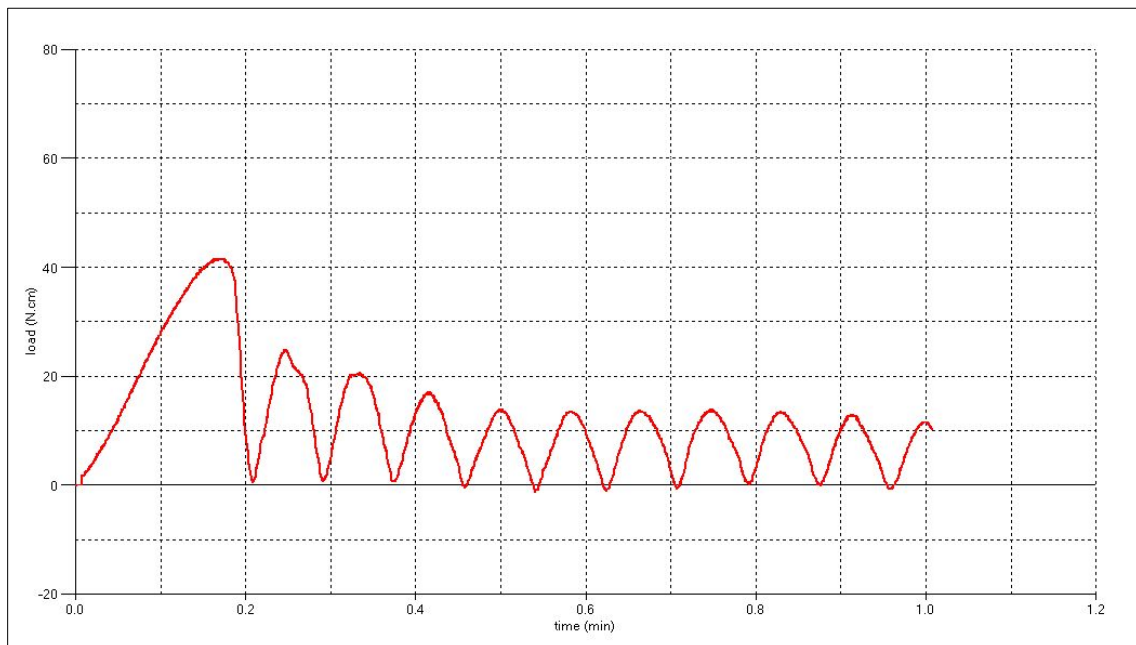
Sample 1



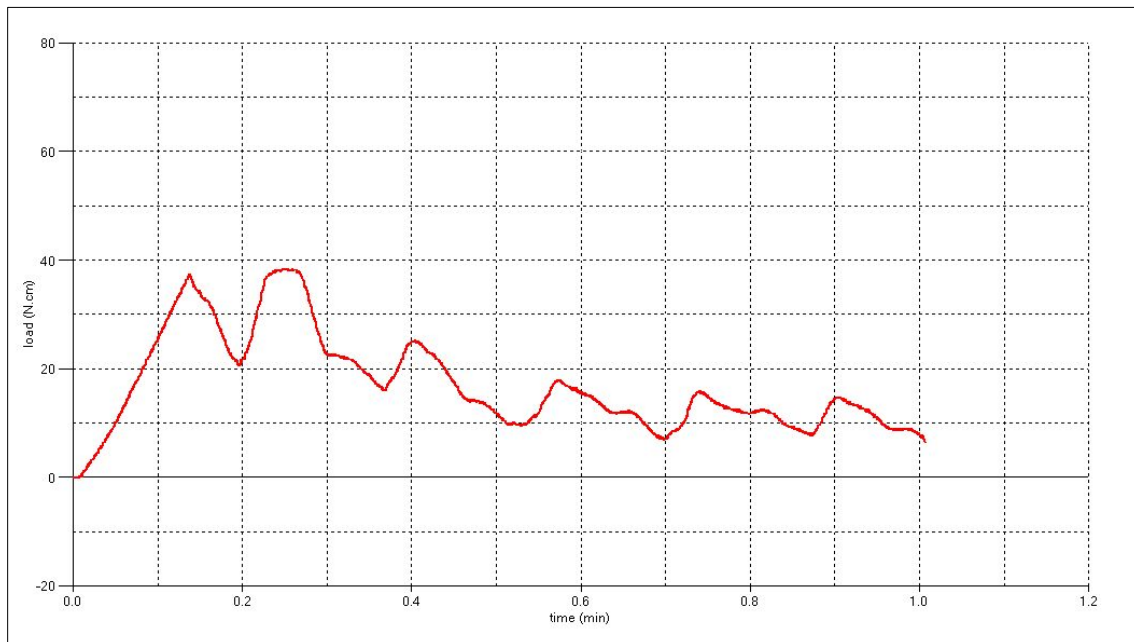
Sample 2





Sample 3



Sample 4



Sample 5

Affirmation	Tests performed by Name : Cheol-Hu, Kim. 	Approved by Title : Technical Manager Name : Ja-Yong, Shin 
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2015-05-19

Testing & Development Center for Dental Materials
Kyung Hee University

End.

Translated at 2015-07-29 by Yun-Kyong Hong 