



VariCap LLC

Rebar Cap

Testing Location:
18071 Mount Washington Street Unit A
Fountain Valley, CA 92708

Prepared for:
VariCap LLC
3555 Plymouth Blvd. STE 117
Plymouth, MN 55447

1/25/2023
226086.R1



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Issue Date: January 25, 2023
Project No. 226086.R1

VariCap LLC


3555 Plymouth Blvd. STE 117
Plymouth, MN 55447

Subject: Test rebar cap per Title 8, CCR §1712, §344.90 Impalement Protection. Specifications and Testing Criteria.

Dear VariCap,

We appreciate the opportunity to be of service on this project. Should you have any questions regarding this report or if we can be of further service, please do not hesitate to contact the undersigned.

Respectfully submitted,
TWINING CONSULTING Inc. dba Radco

| | | | |
|---------------------------------|---|------------------------------------|--|
| Tested By: |  | Submitted by: | |
| Tomas Burokas Lab Technician | 1-25-2023 | Fernando Ardila Project Manager | |



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1.0 INTRODUCTION

At the request of VariCap LLC, Twining Consulting Inc. dba “RADCO” conducted the test listed below in section 2.0 on their rebar cap at the RADCO test facility located in Fountain Valley, CA. The test specimens were tested in accordance with Construction and Safety Orders Title 8, CCR §1712, and §3490, Impalement Protection.

2.0 TEST PROGRAM

Referenced Test Methods

Construction and Safety Orders Title 8, CCR §1712, and §3490, Impalement Protection. Effective October 1, 2000.

3.0 TEST SPECIMEN DESCRIPTION

Per client information: The VariCap is an impalement protection cap that was designed by a construction professional. This OSHA compliant safety device is intended to protect workers from lacerations and falls from height. Rated for 250 lbs. dropped from 10 feet. The yellow end cap that stabilizes the cap on the bar or other hazard is replaceable if it ever becomes damaged for any reason. You simply take the damaged one off and push on a new one.

Date Received: December 21, 2022

Radco received the following:

(3) 4 in. x 4 in. square surface area rebar caps.

4.0 TEST EQUIPMENT

| Category | Type | Manufacturer | Model # | Serial # | ID# |
|-------------|-----------|--------------|------------|----------|-----|
| Weight | Load Cell | Futek | LSB352 | 630605 | 43 |
| | Display | Futek | IHH500 | 635736 | 47 |
| Dimensional | Caliper | Mitutoyo | 500-505-10 | 11658 | 31 |

5.0 CONDITIONING

Sample Conditioning: The specimens were maintained in the office lab @ 73F and ambient relative humidity. There is no specific relative humidity requirement.

6.0 Construction and Safety Orders Title 8, CCR §1712, and §3490, Impalement Protection, Effective October 1, 2000.

PROCEDURE:

A total of three (3) specimens of the manufactured protective covers listed above in section 3.0 were inspected and measured to verify that the surface area was minimum 4 inches by 4 inches. After verifying it was in compliance with the size requirement, the specimens were subjected to the drop or penetration test described in the specification.

The protective covers were tested for penetration by dropping a 250 lbs. bag of dry sand onto the subject protective cover from a height of 10 ft. The 10 ft. were measured from the bottom of the bag to the top of the protective cover.

The sandbag was manufactured and prepared in accordance with the requirements of the specification. It was approved by the Cal/OSHA Engineer witnessing the tests.

The protective cover for rebar was installed over the sheared end of #4 rebar mounted on a concrete slab support with 6 inches of the rebar projecting vertically above the surface of this support. This assembly was inspected and approved by the Cal/OSHA Engineer.

The drop test was repeated three times, using a new protective cover for each test. The first test was performed with the protective cover sitting squarely on top of the rebar, and the other two drop tests were performed with the protective cover sitting at the maximum angle out of square (out of level) that the protective cover permitted with its stabilizer vanes/fins removed. Positions and removal of fins actions were inspected and approved by the Cal/OSHA Engineer. The tests were performed on January 12, 2023.

RESULTS:

The manufactured protective cover caps tested did not show any penetration after the drop of the bag from 10 feet height. The VariCap product passed the drop test requirements.

7.0 CONFORMITY TABLE

| Report Section | Conformity Statement | Applicable Standard | Decision Rule Applied |
|----------------|----------------------|---|-----------------------|
| 6.0 | Pass | Construction and Safety Orders Title 8, CCR §1712, and §3490, Impalement Protection, Effective October 1, 2000. | Simple acceptance |



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8.0 REVISION LOG

| Revision Number | Date | Page(s) | Revision |
|-----------------|------|---------|----------|
| N/A | N/A | N/A | N/A |

9.0 PHOTOGRAPHS



Photo set 1: Test specimen 1



Photo set 2: Test specimen 2

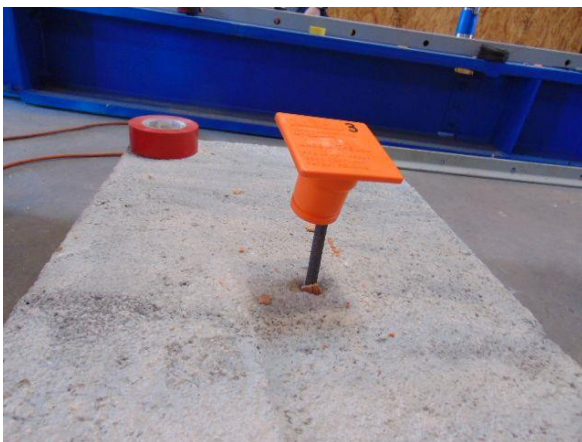


Photo set 3: Test specimen 3

***** END OF REPORT *****