This appendix lists the results from the bar pull out testing as outlined in section 5.2.1. For each parameter, at least 2 tests were performed. Below are the images for the damaged specimens taken after testing as well as the material parameters being tested.
13B-100-2%-P-28D

Bar Diameter: #4, Bars (13 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
13E-100-2%-P-28D

Bar Diameter: #4, Bars (13 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
13B-75-2%-P-28D

Bar Diameter:  
Coating:  
Embedded Length:  
Fiber Content (% vol.):  
Casting Orientation:  
Curing Age:  

Test 1

Test 2

#4, Bars (13 mm)  
Plain  
3 inches (75 mm)  
2%  
Parallel  
28 Days
13E-75-2%-P-28D

Bar Diameter: #4, Bars (13 mm)
Coating: Epoxy
Embedded Length: 3 inches (75 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
13B-50-2%-P-28D

Bar Diameter: #4, Bars (13 mm)
Coating: Plain
Embedded Length: 2 inches (50 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
13E-50-2%-P-28D

Bar Diameter: #4, Bars (13 mm)
Coating: Epoxy
Embedded Length: 2 inches (50 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
16B-100-2%-P-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Plain
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
16E-100-2%-P-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
16B-75-2%-P-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Plain
Embedded Length: 3 inches (75 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
16E-75-2%-P-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Epoxy
Embedded Length: 3 inches (75 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
16B-50-2%-P-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Plain
Embedded Length: 2 inches (50 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
16E-50-2%-P-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Epoxy
Embedded Length: 2 inches (50 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
19B-100-2%-P-28D

Bar Diameter:
Coating: #6, Bars (19 mm)
Embedded Length: Plain
Fiber Content (% vol.) 4 inches (100 mm)
Casting Orientation: 2%
Curing Age: Parallel.
28 Days

Test 1

Test 2

160
19E-100-2%-P-28D

Bar Diameter: #6, Bars (19 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
19B-75-2%-P-28D

Bar Diameter: #6, Bars (19 mm)
Coating: Plain
Embedded Length: 3 inches (75 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
**19E-75-2%-P-28D**

Bar Diameter: #6, Bars (19 mm)
Coating: Epoxy
Embedded Length: 3 inches (75 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Parallel
Curing Age: 28 Days

**Test 1**

**Test 2**

163
19B-50-2%-P-28D

Bar Diameter: #6, Bars (19 mm)
Coating: Plain
Embedded Length: 2 inches (50 mm)
2%
Fiber Content (% vol.)
Parallel
Casting Orientation:
Curing Age:
28 Days

Test 1

Test 2
19E-50-2%-P-28D

Bar Diameter: #6, Bars (19 mm)
Coating: Epoxy
Embedded Length: 2 inches (50 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2

165
## 19B-75-1%-P-28D

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar Diameter</td>
<td>#6, Bars (19 mm)</td>
</tr>
<tr>
<td>Coating</td>
<td>Plain</td>
</tr>
<tr>
<td>Embedded Length</td>
<td>3 inches (75 mm)</td>
</tr>
<tr>
<td>Fiber Content (% vol.)</td>
<td>1%</td>
</tr>
<tr>
<td>Casting Orientation</td>
<td>Parallel</td>
</tr>
<tr>
<td>Curing Age</td>
<td>28 Days</td>
</tr>
</tbody>
</table>

### Test 1

![Test 1 Image](image1)

### Test 2

![Test 2 Image](image2)
19E-75-2%-T-28D

Bar Diameter: #6, Bars (19 mm)
Coating: Epoxy
Embedded Length: 2 inches (50 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Transverse
Curing Age: 28 Days

Test 1

Test 2
16E-100-2%-P-1D

Bar Diameter: #5, Bars (16 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 1 Day

Test 1

Test 2
16E-100-2%-P-3D

Bar Diameter: #5, Bars (16 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.) 2%
Casting Orientation: Parallel
Curing Age: 3 Days

Test 1

Test 2
16E-100-2%-P-7D

Bar Diameter: #5, Bars (16 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol): 2%
Casting Orientation: Parallel
Curing Age: 7 Days

Test 1

Test 2
16B-100-2%-T-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Plain
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.): 2%
Casting Orientation: Transverse
Curing Age: 28 Days

Test 1

Test 2
16E-100-1%-P-28D

Bar Diameter: #5, Bars (16 mm)
Coating: Epoxy
Embedded Length: 4 inches (100 mm)
Fiber Content (% vol.) 1%
Casting Orientation: Parallel
Curing Age: 28 Days

Test 1

Test 2
16E-100-2%-P-28D*

Bar Diameter: 
Coating: 
Embedded Length: 
Fiber Content (% vol.)
Casting Orientation: 
Curing Age: 

#5, Bars (16 mm)
Epoxy
4 inches (100 mm)
2%
Parallel
28 Days

Test 1

Test 2
Test 3

*Cast & Tested Same Day as 16E-100-1%-P-28D