



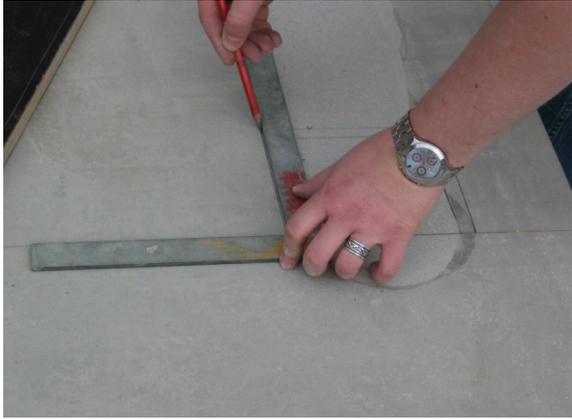
A Simpson Strong-Tie® Company

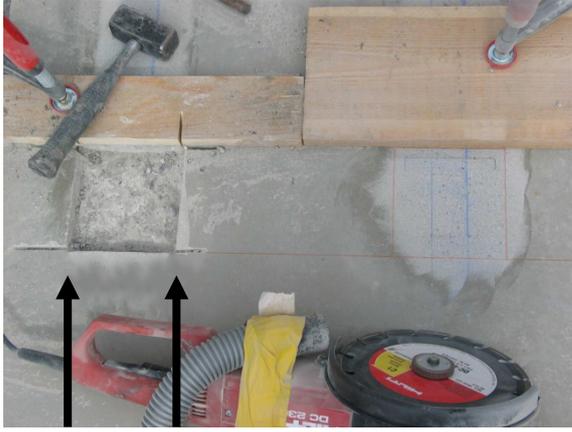
Application instructions S&P C-Laminate (End-Anchor)

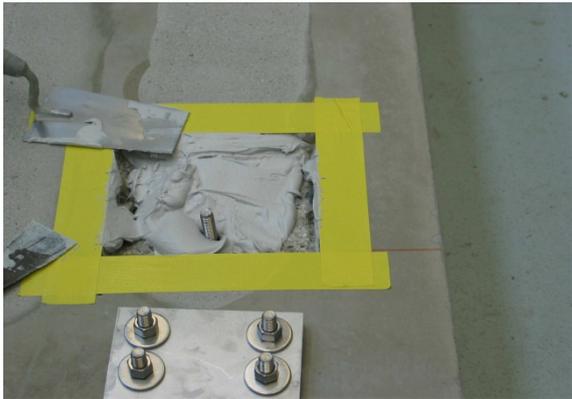
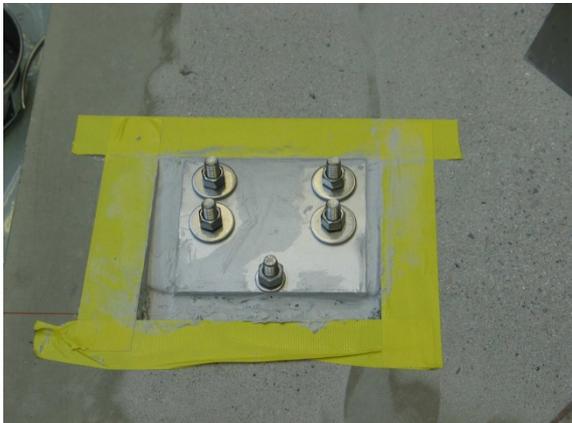
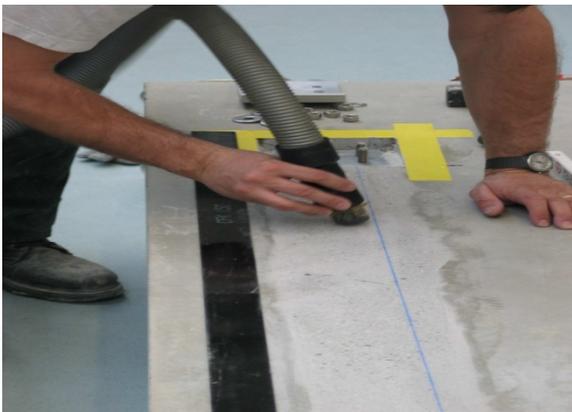


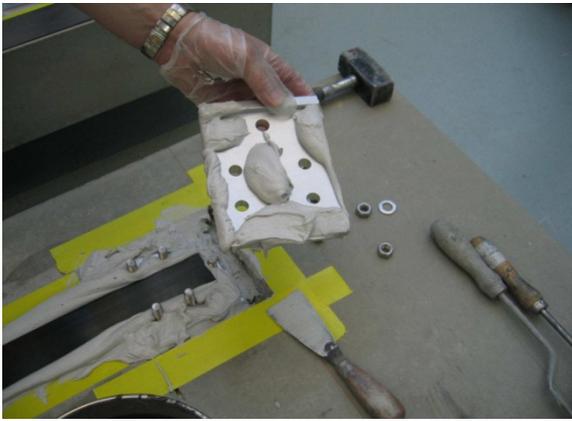
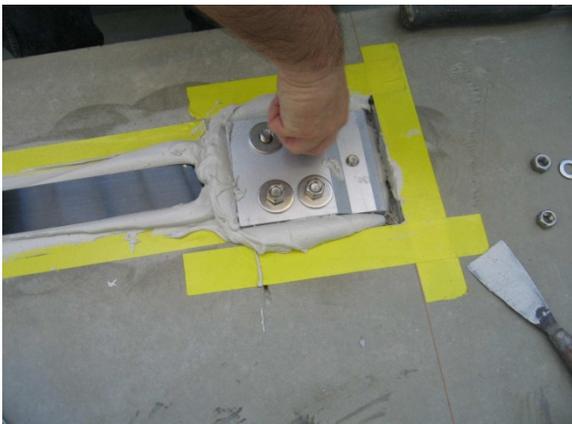
General quality requirements:

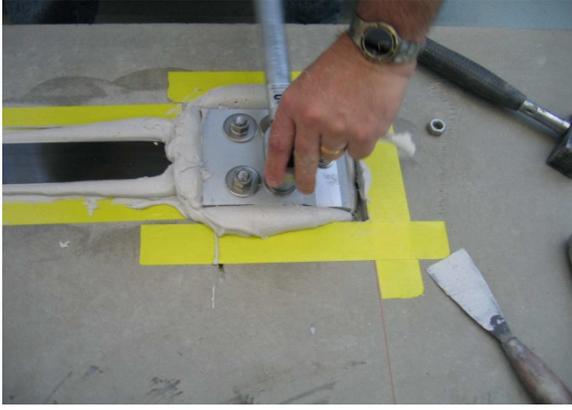
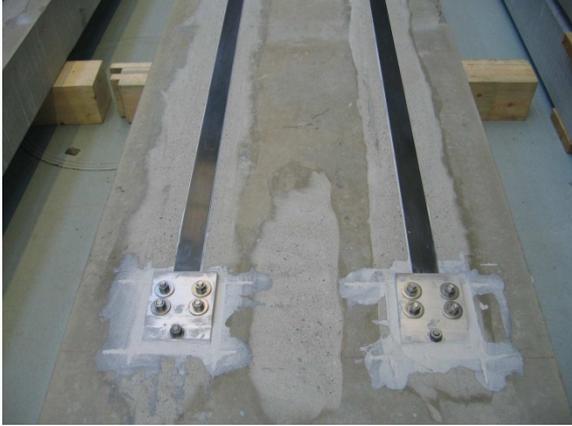
- **Minimum pull-off tensile strength of bearing substrate: > 1.5 N/mm²**
- **Minimum substrate temperature: 3 °C above dew point temperature**
- **Maximum substrate moisture content: 4 %**
- **Glue handling temperature: + 10 to + 35 °C**
- **Age of concrete: at least 3 to 6 weeks**

1		<p>Measure out and clearly mark the recess.</p> <p>For recess dimensions, see table on page 7.</p>
2		<p>Start to cut the front side (adjacent to the laminate) of the recess with a diamond blade.</p>
3		<p>Cutting depth: max. 25 mm.</p>

<p>4</p>		<p>Complete the milling cuts on all sides, making sure not to overlap the corners on the front side!</p>
<p>5</p>		<p>Remove the concrete in the recess area.</p>
<p>6</p>		<p>Drill and insert the dowel (1 x M12). The thread must protrude by at least 40 mm.</p>
<p>7</p>		<p>Seeing as only 1 dowel has to be inserted, it can easily be placed next to the reinforcement bars.</p>

<p>8</p>		<p>Remove all dust on the bearing substrate completely by using a vacuum hose.</p>
<p>9</p>		<p>Fill the recess with the epoxy glue S&P Resin 220.</p>
<p>10</p>		<p>Press the bottom anchor plate into the recess and lightly tighten all the bolts (M12)</p> <p>Clean off any excess epoxy glue on the anchor plate and anchor components.</p>
<p>11</p>		<p>In the area where the laminate will be installed, the bearing substrate must be cleaned thoroughly using a vacuuming hose.</p>

<p>12</p>		<p>Using S&P Cleaner, clean and remove any grease on the glue-applying side of S&P laminates and end anchors.</p>
<p>13</p>		<p>Stick the laminate onto the substrate correctly and professionally. Coat the anchoring ends with glue.</p>
<p>14</p>		<p>Likewise, coat the top anchor plate in S&P Resin 220.</p>
<p>15</p>		<p>Mount the top anchor plate onto the bottom anchor plate, and squeeze the glue out by tightening the bolts.</p>

16		<p>Manually, firmly tighten the 4 M12 bolts (max. torque: 60 Nm).</p>
17		<p>Likewise, firmly tighten the M12 dowel.</p>
18		<p>Image of the completed, anchored S&P laminates CFK.</p>

- **Measures regarding health & safety (protective clothing/ accident prevention) are a prerequisite.**

The **minimum dimensions of the recesses** in the concrete bearing substrate can be found in the following table:

S&P End Anchor	Laminate width	Permissible anchor force	Plate width	Plate length	Recess width	Recess length	Recess depth
Type 50	50 mm	75 kN	120 mm	Bottom anchoring plate: 125 mm Top anchoring plate: 155 mm	140 mm	160 mm	20 mm
Type 60	60 mm	90 kN	130 mm		150 mm	160 mm	20 mm
Type 80	80 mm	120 kN	150 mm		170 mm	160 mm	20 mm
Type 90	90 mm	135 kN	160 mm		180 mm	160 mm	20 mm
Type 100	100 mm	150 kN	170 mm		190 mm	160 mm	20 mm
Type 120	120 mm	180 kN	190 mm		210 mm	160 mm	20 mm
Type 150	150 mm	225 kN	220 mm		240 mm	160 mm	20 mm

Full load-bearing capacity is reached after 48 hours.

More information about the S&P CFRP systems and all technical data sheets, as well as all safety data sheets, are available at www.sp-reinforcement.eu.