

PENETRON T300 CARBON FIBER FABRICS

carbon fiber not only has high strength and high elastic modulus , but also possesses the characteristics of light self-weight and high durability . Baseline carbon fiber used in aerospace applications , Has 30 year production history and is known for its balanced composite properties . high quality . consistency and reliability .

USES :

Strengthening of reinforced concrete structures, brickwork and timber to increase flexural and shear load capacity. Reasons:

- Improved seismic performance of masonry walls
- Substitute missing / corroded reinforcement
- Strength and ductility of columns
- Increasing loading capacity of structural elements
- Changes of building utilisation
- Structural design construction defects
- Seismic movement
- Improved serviceability
- Structural upgrading to comply with changed standards

TECHNICAL SPECIFICATION

<u>Item</u>	<u>Unit</u>	<u>T300 quantitative value</u>
<u>Carbon fiber content</u>	<u>%</u>	<u>68</u>
<u>Resin content</u>	<u>%</u>	<u>32</u>
<u>Specific gravity</u>	<u>g/cm3</u>	<u>1.5</u>
<u>Tensile strength</u>	<u>Mpa</u>	<u>3400</u>
<u>Elasticity modulus</u>	<u>Gpa</u>	<u>240</u>
<u>Shearing strength</u>	<u>Mpa</u>	<u>40</u>
<u>Poisson ratio</u>	<u>-</u>	<u>0.25</u>
<u>elongation</u>	<u>%</u>	<u>1.7</u>

<p>CHARACTERISTICS / ADVANTAGES :</p>	<p>Excellent fiber alignment (no deviation of load carrying fibers)</p> <p>Multifunctional use for every kind of strengthening requirement</p> <p>Flexibility of surface geometry (Beams, columns, chimneys, piles, walls, silos)</p> <p>Low density for minimal additional weight</p> <p>Economical compared to traditional techniques</p> <p>Excellent cost performance</p>
<p>Packaging</p>	<p>1 roll in a cardboard box</p> <p>Fabric length / roll : 100m</p> <p>Fabric width : 500 mm</p>
<p>Notes on Application / Limitations</p>	<p>Minimum radius required for application around corners: > 10 mm. Grinding edges or building up with epoxy base mortars may be necessary.</p> <p>In fiber direction, overlapping of the fabric must be at least 100 mm depending on Penetron T300 type or as specified in the strengthening design.</p> <p>Overlapping length in the weft direction 100 mm or depending on the strengthening design specification. Overlaps of additional layers should be distributed over the column circumference.</p> <p>For side-by-side application, no overlapping length in the weft direction is required. Overlaps of additional layers should be distributed over the column circumference.</p> <p>The strengthening application is inherently structural and great care should be taken when choosing suitably experienced contractors.</p> <p>The Penetron T300 fabric is coated to ensure maximum bond and durability with the impregnating/laminating resins. To maintain system compatibility do not interchange system components.</p> <p>The Penetron T300 may be/should be coated with a cementitious overlay or coatings for aesthetic and/or protective purposes. Selection will be dependent on exposure requirements.</p>
<p>Health and Safety Information</p>	<p>For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.</p>