CORBELL® Wrap 240 C

Carbon Fiber Fabric for Structural Strengthening Systems

Product Advantages

- High tensile strength
- Light weight
- Protect structure elements and reinforce
- Corrosion resistance
- Dry lay-up
- Alkali resistant

Product Uses

- Loading increases
- Seismic strengthening
- Damage to structure parts
- Change in structure system
- Design or construction defects

This product can be used to resolve strength deficiencies of reinforced concrete structures and also increase the load carrying capacity of building, bridges, marine structures, tunnels, silos and parking structures, etc.

Loading Increases:

- Increase the capacity of carrying load in order to change in bad building use.
- Increase the live load for industrial buildings and vibrating structures.
- Increase the capacity of carrying live load for bridges in order to extend traffic volumes.
- Increase the load capacity of parking Structures.

Seismic Strengthening.

- Column wrapping to Increase capacity of axial load and conferment for ductility improvement.
- Shear strengthening
- Flexural strengthening

Damage to Structure Parts.

- Correct strength deficiency due to corrosion.
- Retrofitting of structure elements damage by fire.

Change in Structure System:

- Strengthening of structures element in order to removal of walls or columns.
- Remove of slab sections for openings.

Design or Construction Defects:

- Low compressive strength of structure concrete.
- Insufficient amount of structural reinforcement.
- Insufficient size of reinforcement.
- Insufficient reinforcing bar or overlap Length.

Construction Process

1. **Surface Preparing:**
   Remove the coating of concrete surface with grinder. Polishing the Surface. If there is angular, grinder it into round.
2. **Setting out:**
   Get the concrete surface clean and keep it dry, then setting out.
3. **Apply Primer:**
   Apply primer adhesive onto the surface of the concrete.
4. **Apply Putty/Leveling:**
   Apply putty for repairing and leveling if needed.
5. **Fabric Cutting:**
   Cut (Carbon - E Glass) fiber fabric into sizes as designed.
6. **Preparing the impregnation adhesive:**
   Weight and mixing adhesive according to ratio. Stirring the adhesive until the color is even. Avoid air bubble in this process.
7. **Applying Impregnation Adhesive:**
   Apply impregnation adhesive when primer adhesive is touch dry.(If primer is not required, impregnated adhesive can be applied directly)
8. **Apply carbon- E Glass fiber fabric:**
   Apply carbon fiber fabric onto the concrete surface as designed. Leveling the surface from one end to another.
9. **Check Gap or Bubble:**
   Apply impregnation (Carbon - E Glass) fiber adhesive again. Make sure the adhesive impregnate fully into the fabric. The surface flat and Lack off air bubble. Repeat above process from cutting carbon fiber if applying two or more layers.

General Technical Data for CORBELL® Structural Wrap

Fiber Type	Weave	Thickness (mm)	Weight (Gr/mm)	Tonsile Strength (Mpa)	Tonsile Modulus (Gpa)	Elangation
Corbell Wrap 150C	UD Carbon	0.084	150	4900	230	109%
Corbell Wrap 200 C	UD Carbon	0.112	200	4900	230	109%
Corbell Wrap 240 C	UD Carbon	0.135	240	4900	230	109%
Corbell Wrap 300 C	UD Carbon	0.168	300	4900	230	109%
Corbell Wrap 200 G	UD Glass	0.078	200	2300	90	3.9%
Corbell Wrap 400 G	UD Glass	0.157	400	2300	90	3.9%
Corbell Wrap 600 G	UD Glass	0.236	600	2300	90	3.9%