## **Characteristics of Carbon fabric**

- \* High strength & modulus : As a result of the basic reinforcement material being evenly arranged carbon fibers, CU-products achieves a high tensile strength and modulus.
- \* Light weight : As a result of carbon fiber sheets having only about a quarter of the density of steel, CU-products does not needlessly increase the total weight of the reinforced area.
- \* Excellent durability, anti-corrosion and water proofing effect CU product is a composite reinforced material composed only of carbon fiber and epoxy resin. There is no corrosion and deterioration from environmental condition such as water, alkali and acid. It shows excellent water proofing effect.
- \* Ease of application : During the simple process of bonding the carbon fiber to the damaged concrete, CU-product conforms smoothly to complex structural shapes without special tools or machinery
- \* Economical : CU-product provides excellent economy due to its high workability and low maintenance

## **Effects of reinforcement**

- \* Improvement of Bending proof stress Carbon reinforcement method is an effective way to improve its bending proof stress. You can get much higher proof stress by attaching it to structure's tensile side.
- \* Improvement of durability of abrasion Reinforced surface attached carbon fiber is against abrasion.
- \* Reinforcement of cracks

By reinforcing carbon fiber on the concrete's surface that are cracked due to overloads, impacts, you can restore its strength and keep it from cracks.

\* Reinforcement of round shape structure you can superior effects on the round shape structures such as tunnels, silos, smoke stacks unlike existing ways of rigid reinforcement.

## **Properies**

## Items : SNU-1220A

Characteristics	Unit	Specification	Test Value	Test Method
Tensile Strength	Gpa(kgf/cm2)		4.4 (44,867.5)	ASTM D3039
Tensile Modulus	Gpa(kgf/cm2)		350.2(3,571046)	ASTM D3039
Weave		UD(Uni-direction)	UD	KS L 2522
Yarn Type	Warp	Carbon fiber 12K	CF 12K	
	Weft/Fill	G150 1/0	G150 1/0	
Density	Warp (count/inch)	6.4	6.4	
	Weft/Fill (count/inch)	5	5	
Areal weight	g/m2	200±10	200	
Fabric Width	mm	500 +5/-0	500	
Fabric Thickness	mm	0.11±0.050	0.112	
Elongation	%	1.2±0.5	1.38	