در خصوص خرید الیاف cfrp پیمانکاران محترم می بایست به موارد ذیل توجه فرمایند :

۱.مشخصات مکانیکی مطابق با حدود درج شده در جداول پیوست می بایست باشد(از جمله مدول الاستیسیته کششی ، ضخامت ،پهنا و.....)

۲. پیمانکاران محترم می بایست پس از برنده شدن در سامانه نسبت به خرید و انتقال کلیه مقادیر به محل اعلام شده توسط کارفرما اقدام نمایند. پس از آن ناظر مربوطه طی بازدید اقدام به نمونه گیری و ارسال به آزمایشگاه مورد تایید اداره کل فرودگاه بین المللی مهرآباد خواهد نمود هزینه کلیه آزمایشات بعهده پیمانکاران خواهد بود.

۳.پرداخت ۷۰٪ اول صورت وضعیت منوط به تایید نتایج آزمایش خواهد بود و در صورت عدم تایید کلیه موارد عودت خواهد شد و هیچگونه هزینه ای در این خصوص پرداخت نخواهد شد.

۴.پیمانکاران موظف به ارائه برگه اصالت کالا و ضمانت آن می باشند.

۵.آزمایشگاه مورد تایید :آزمایشگاه مرکز پژوهش متالورژی رازی می باشد.

"HM-۳۰ Carbon Fiber Fabric ۳۰۰gsm,۵۰cm width,۱۰۰long ,

HM-۱۸۰C۳P Carbon Fiber Fabrics Epoxy ۳۰kg/set"

TECHNICAL DATA (DRY FIBER)

	Unit	UCW™
Color	-	Black
Weave Pattern	-	Unidirectional
Primary Fiber Direction	-	0°
Density ISO 10119	gr/cm^3	1.76 – 1.80
Tensile Strength* ISO 10618	MPa	3000 - 4000
Tensile Modulus ISO 10618	GPa	200-240
Elongation ISO 10618	-	1.5 - 2 %
Application Methods	-	Hand lay-up Spray machine Robot processes
Compatible Resins	-	Epoxy, Polyester, Phenolic, Polyurethane, Vinylester
Storage Conditions	°C	Store dry at 4 – 40

*For Carbon Fiber Tow (Non-Woven)

TECHNICAL DATA (Wrap)

	Unit	UCW™3.0h	UCW™2.0h	UCW™1.0h
Thickness	mm	0.09	0.11	0.17
Width	cm	50	50	50

Note: Composite tensile strength is approximately 1000 MPa depended on used resin (base on ASTM D-3039 test methods)

MIXING

Epoxy resins (or other resins) are required to make CFRP systems. Epoxy compounds are usually supplied in two different containers. Before pouring the contents of component B into contents of component A, each part should be stirred separately to avoid deposit in container. Then part A and B should be mixed together depending on the required quantity. Process of mixing should take 3-5 minutes with a low speed mixer.

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TREATMENT

Carbon fabrics can be cut with knives, commercial quality heavy-duty scissors, and rulers. These are proper tools for cutting CFRP systems to obtain an ideal length and width. Any of the other cutting instruments can damage the fabrics.

APPLICATION

The substrate must be clean and eroded or damaged concrete surfaces must be repaired by CTech-LLC® epoxy mortar. Cover the substrate with suitable form of ERP™ epoxy primer. Saturate the fabrics by a mechanical saturator. The saturator controls fiber-resin ratio in operation and converts carbon and fibers into prepreg fabrics, so they can be used instantly on the surface of different elements. Installation of all the layers of saturated fabrics must be done according to the design requirements. If required, additional fabrics can be used on top of previous layers. Using a roller can ensure all pockets are removed between fabric and substrate and there is a good bonding between them. This process should be performed by licensed and specially trained groups of installers.

PROTECTIVE COATINGS

A protective coating must be applied on the surface of FRP system. The coating should be non-vapor-barrier and complies with the FRP system. Plaster final coating, paint final coating and fireproofing coating are three common methods witch can be used to make barrier between damaging environment and structures. Painting should be done between 24 to 72 hours after final application of epoxy. The protective coating can protect surface against corrosion, decaying, cracking, chipping, fading and other typical problems which may happen for the structure.

STORAGE & SHELF LIFE

Carbon fibers should be stored at +5°C to +35°C and should not be exposed to direct sunlight. Keep the carbon fabrics in a dry place.

CAUTION

All components of FRP systems may cause skin irritation and sensitization. Use of chemical resistant gloves is recommended. Avoid breathing vapors and dust. Get medical attention if you are breathing with difficulty. Resins products can cause strong eye irritation. Avoiding eye contact and Using safety goggles is necessary.

دستگاه نظارت
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رهیافت اندیشه فردا
شماره ثبت ۱۷۷۲۷۶

HORSE

Technical Parameters

Model	Specification	Strength Grade	Thickness
HM-20	200g/m^2	High strength Grade I	0.111mm
HM-23	230g/m^2	High strength Grade I	0.128mm
HM-30	300g/m^2	High strength Grade I	0.167mm
HM-43	430g/m^2	High strength Grade I	0.240mm
HM-45	450g/m^2	High strength Grade I	0.250mm
HM-53	530g/m^2	High strength Grade I	0.294mm
HN-60	600g/m^2	High strength Grade I	0.333mm

Model	HM-30
Appreance	Black fabric
Length	100m
Width	Regular width is 100mm, 150mm, 200mm, 250mm, 300mm, 500mm, other width can be customized.
Shelf Life	10 years
Storage Conditions	Store in dry conditions at 40°F to 95°F (4°C to 35°C)
Braiding	0° (Unidirectional)
Areal Weight	300g/m^2
Package	This product uses carton package. When the width is 100mm, 200mm, 300mm, the total area of carbon fiber per case is 60㎡; when the width is 250mm, 500mm, the total area of carbon fiber per case is 50㎡.

Room 501, 10#Building, Lane 1228 Jiangchang Rd, Shanghai, China
Tel:86-21-56505428; Fax:86-21-36523027

دستگاه نظارت
بازکنک ترمینال ۴ فرودگاه مهرآباد
رهیافت اندیشه فردا
شماره ثبت ۱۷۷۲۷۶

Typical Fiber Properties

Dry Fiber Typical Properities

Stand Value of Tensile Strength	5800 Mpa
Tensile Elastic Modulus	255.53 Gpa
Elongation	1.60%

Laminated Fiber Typical Properties

Stand Value of Tensile Strength (ASTM D3039)	4840.44
Tensile Elastic Modulus (ASTM D3039)	255.53 Gpa
Elongation (ASTM D3039)	1.95%
Flexural Strength (ASTM D7264)	921.94
Shear Strength (ASTM D2344)	96.23
FRP with Concrete Bonding Strength	⩾2.5Mpa, concrete cohesion damage
Density	1.8g/cm³
Fiber Thickness	0.167mm

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