

| Property                    | Specification / Value  | Standard / Notes  |
|-----------------------------|--|---|
| Product Name                | Flexible Carbon Fiber Sheet / Fabric Reinforced Composite Sheet        | Also known as: Bendable carbon fiber, Carbon fiber cloth sheet  |
| Reinforcement Material      | 100% Carbon Fiber (e.g. Toray T300 / T700)                             | Available in 1K / 3K / 6K / 12K tows                            |
| Matrix Type                 | Softened Epoxy, Silicone, or Thermoplastic Resin System                | Selected based on application (soft & flexible after curing)    |
| Weave Pattern               | Plain / Twill / Satin Weave  | Others available on request                                     |
| Thickness Range             | 0.2 mm - 1.5 mm  | Typical: 0.3mm, 0.5mm, 0.8mm                                    |
| Width Range                 | 100 mm - 1500 mm   | Custom roll widths available                                    |
| Length per Roll             | 1 m - 50 m   | Standard rolls: 10m, 20m, or customized                         |
| Surface Finish              | Smooth / Fabric Texture / Matte / Glossy                               | No sanding required for bonding                                 |
| Tensile Strength            | $\geq 350$ MPa (Depending on layup and resin)                          | ASTM D3039  |
| Tensile Modulus             | $\geq 20$ GPa  | ASTM D3039  |
| Bending Radius              | $\geq 25$ mm (for 0.3 mm thick sheet)                                  | Excellent conformability  |
| Fiber Volume Content        | 35% - 55%  | ASTM D3171  |
| Density                     | $\sim 1.3 - 1.5$ g/cm <sup>3</sup>                                     | Lightweight construction  |
| Operating Temperature Range | -40° C to +120° C (Standard Epoxy) / Up to 200° C (Special Resin)      | Custom resins for high-temp use available                       |
| Electrical Conductivity     | Conductive (in-plane)  | Suitable for EMI shielding & flexible electronics               |
| Thermal Conductivity        | 5 - 8 W/m • K  | Lower than rigid sheets   |
| Flame Retardancy            | Optional (UL94 V-0 resin system available)                             | Customizable  |
| Water Absorption            | < 0.15% (24h @ 23° C)  | ASTM D570   |
| Certifications              | ISO 9001 / RoHS / REACH Compliant                                      | SGS or other 3rd-party testing available                        |
| Machinability               | Can be laser-cut, die-cut, CNC processed                               | Must control edge fray if needed                                |
| Adhesion Compatibility      | Bonds well with metal, plastic, glass using epoxy or acrylic adhesives | Surface cleaning recommended                                    |
| Available Backing           | 3M Adhesive Tape / No Adhesive / Silicone-Coated                       | Optional self-adhesive version                                  |
| Colors / Special Options    | Black (standard), Colored carbon fabrics, Kevlar blend                 | Custom pattern on request (e.g. checkerboard, camo)             |
| Typical Applications        | Drone skin, RC body, automotive interior trim, flexible antennas,      | Also used in wearable devices, sports gear, helmets, decorative |

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|          | shielding             | covers           |