

Carbon fibre ribbons are not classified as hazardous, but handling them produces conductive dust and mechanical irritants. You must manage filament dust, prevent skin contact, and protect electrical equipment.

Key safety and hazard points include:

- **Electrical Conductivity:** Loose carbon dust or filaments can cause **electrical shorts** if they settle on switchgear or live electrical equipment.
- **Mechanical Irritation:** Skin contact, particularly with cut or frayed ribbon, can cause temporary itching or mild rashes.
- **Respiratory:** Breathing in generated dust/fumes may irritate the respiratory tract.
- **Flammability:** Not readily flammable, but exposure to temperatures above 650°C can release carbon oxides and decomposition products.

Recommended PPE and Handling Controls

- **Skin Protection:** Wear close-fitting long sleeves, long trousers, and **nitrile or leather gloves**. Use barrier creams if needed.
- **Eye Protection:** Wear **safety glasses** or chemical splash goggles when cutting or sanding.
- **Dust Control:** Avoid generating dust. Use **local exhaust ventilation (LEV)** during machining operations and clean up using a vacuum instead of sweeping.
- **Wear a suitable dust mask**

Exposure Limits and First Aid

- **Workplace Limits:** While carbon fibres do not have an official UK workplace exposure limit, standard man-made mineral fibre guidelines (e.g., 3.0 fibers/cc) are typically applied.
- **Skin Contact:** Wash the area thoroughly with soap and water. Do not rub, as this drives fibres deeper into the skin. If fibres are visible on the surface, lift them off using clear adhesive tape (like Sellotape).
- **Eye Contact:** Flush eyes immediately with running water for 15 minutes