# CARBONFEATHER

## Overview

Carbonfeather is designed to block unwanted light and can prevent reflections inside optical assemblies. The thin and light material is efficient in blocking light and offers a high level of reliability and longevity.

Carbonfeather is used to build assemblies for optical and lighting equipment such as photo and video cameras, photocopiers, light assemblies and components for medical and laser applications. The mechanical properties allow it to be used for moving parts, such as shutters and irises, where the low thermal expansion ensures proper operation even under harsh conditions. Our film uses coatings to achieve high optical density with good electrical resistance, while offering low mechanical friction.

This document lists our most popular products; other types and material thicknesses are available on request.

## Products

<table>
<thead>
<tr>
<th>CARBONFEATHER X1B</th>
<th>CARBONFEATHER X1BST</th>
<th>CARBONFEATHER X2B</th>
<th>CARBONFEATHER X4LGB</th>
</tr>
</thead>
</table>

## Applications

**Light shielding**
- Lens assembly
- Lens spacers
- Lamp fixtures
- LED assemblies
- Light boxes
- Laser scanners
- Photocopiers

**Light shielding**
- Shutter blades
- Diaphragm
- Lens spacers
- Lamp fixtures
- LED assemblies

## Features

**Double sided absorption layer**
- Standard layer

**Double sided absorption layer**
- Reduced thickness

**Double sided absorption layer**
- Optimized friction for moving parts

**Double sided absorption layer**
- Optimized surface, reduced reflection

## Structure

- **Light absorption layer**
- **Base PET film**
- **Light absorption layer**

## Specifications

### PET base film
- 50 Micron
- 25 Micron
- 75 Micron
- 25 Micron

### Total thickness
- 68 Micron
- 35 Micron
- 105 Micron
- 37 Micron

### Surface gloss
- 3.0%
- 4.0%
- 2.0%
- 0.4%

### Optical density
- 6
- 4.8
- 6
- 6

### Roughness µm
- 0.7µm
- 0.7µm
- 1.3µm
- 0.8µm

### Resistance Ω/□
- 10^4
- 10^4
- 10^4
- 10^4

### Dynamic friction
- 0.21
- 0.19
- 0.22
- 0.44

### Static friction
- 0.28
- 0.32
- 0.27
- 0.49

Shown values represent measurements on specific samples. All technical data is subject to change.