

# 100 x 100mm Sheet of Metal Velvet Foil, Standard Adhesive

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Acktar Light Absorbent Foil



Stock #28-938 **3 In Stock**

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## Product Downloads

### General

Model Number:  
MV-10X10-1

Type:  
Standard Adhesive

Dimensions (cm):  
10 x 10

## Physical & Mechanical Properties

100 x 100 **Dimensions (mm):**

115 **Foil Thickness (µm):**

60 **Adhesive Thickness (µm):**

## Optical Properties

Metal Velvet™ **Coating:**

5 - 7 **Coating Thickness (µm):**

0.3 - 14 **Wavelength Range (µm):**

## Environmental & Durability Factors

-40 to +121 **Operating Temperature (°C):**

Light, do not touch **Abrasion Resistance:**

ML-C-48497A **Humidity Resistance:**

## Regulatory Compliance

**RoHS 2015:**  
Compliant

**Certificate of Conformance:**  
View

**Reach 247:**  
Compliant

## Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- Diffusive, Lambertian, or Specular Reflectance
- Extremely Wide Band Performance from the UV to IR
- Standard, Low Outgassing, and No Adhesive Options
- [Die Cut Labels](#) and [Larger Rolls](#) Available

Acktar Light Absorbent Foil and Film is used to eliminate light reflectance in applications where the direct coating of parts is not practical, including optical packaging, laser devices and platforms, IR systems, or passive thermal control. Acktar Light Absorbent Foil and Film features high emissivity with low reflectance, low outgassing, excellent biocompatibility, a broad operating temperature range, and compatibility with class 1 cleanrooms. Acktar Light Absorbent Foil and Film is available in pre-cut patterns or as large sheets for custom patterns.

Acktar Light Absorbent Foil and Film is offered in Metal Velvet™ (diffusive coating on aluminum), Spectral Black™ (semi-specular coating on aluminum), MaxiBlack™ (diffusive coating on polyimide), or Lambertian Black™ (diffusive coating on stainless steel). Metal Velvet offers superior light absorption performance while Spectral Black is more durable, and Lambertian Black performs better at grazing angles. MaxiBlack, in addition to being durable and flexible, is nonconductive and can be used in applications that require light absorbing materials with no electrical conductivity.

**Note:** Metal Velvet has low resistance to abrasion and all surface contact should be avoided without proper equipment.

## Technical Information



Product Type	Metal Velvet™	Lambertian Black™	MaxiBlack™	Spectral Black™	Hexa-Black™
<b>Key Features</b>	Low reflectance of ~1%	High absorption at grazing angles	Thin polyimide, nonconductive substrate	Semi-specular finish	Ultra-high absorption at grazing angles
<b>Substrate Material</b>	Aluminum	Stainless Steel	Polyimide (Kapton)	Aluminum	Aluminum Honeycomb
<b>Substrate Thickness</b>	120µm	100µm	75µm	130µm	2mm
<b>Appearance</b>	Diffusive	Highly Diffusive	Diffusive	Specular	Diffusive 3D Structure
<b>Typical Spectral Range</b>	EUV - FIR	EUV - FIR	UV - MMIR	VIS - MMIR	EUV - FIR
<b>AOI Range</b>	0 - 60°	0 - 80°	0 - 60°	0 - 45o	0 - 88°
<b>Reflectance @ 0° AOI</b>	~1%	~1.5%	~2.5%	~2%	~1.5%
<b>Abrasion Resistance</b>	Light	Moderate to High	Moderate	Moderate	Moderate
<b>Cleanliness</b>	Class 10000 - ISO 7	Class 100 - ISO 5	Class 100 - ISO 5	Class 100 - ISO 5	Class 10000 - ISO 7