

## Acktar VIS and IR Light Absorbing Foil

### Spectral Black™ and Spectral Black HP™

Spectral Black™ - 可視、近赤外、中赤外、遠赤外に対応した光吸収膜で、迷光・散乱光除去や輻射熱吸収など様々な用途に適しています。

貼付型シート：

- 対象部品が、曲面、球面、複雑形状の場合、予備成形タイプ(プリフォームシート)の提供も可能です。
- 強い耐湿性が求められる場合、耐湿型光吸収膜の提供が可能です。
- 対象面積が広域な場合にも適しています。
- 光吸収膜の定期交換が必要な場合に適しています。

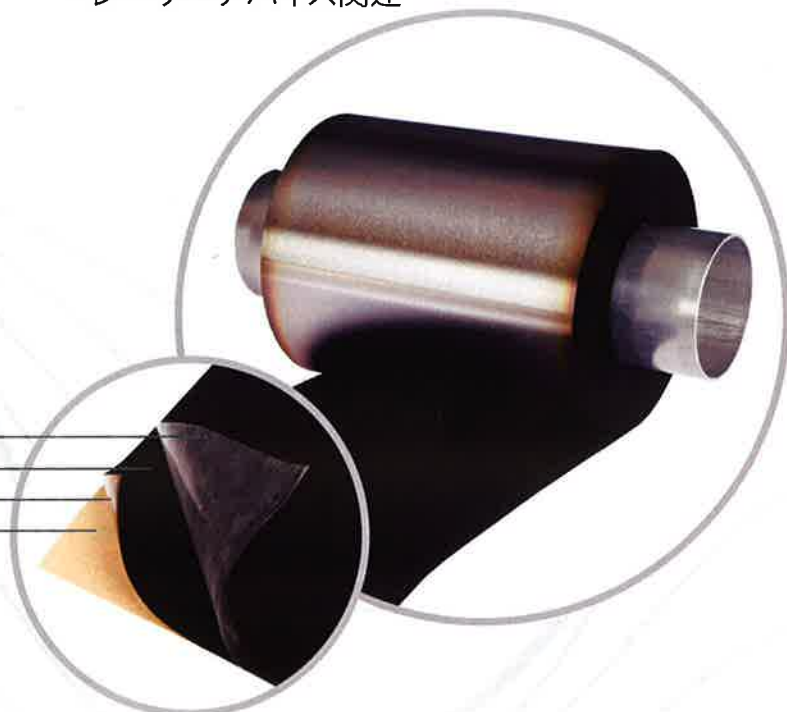
#### Spectral Black™- 特徴

- 高い放射率/低反射率
- 低アウトガス
- クラス 1 クリーンルームで適用可能
- 非粒子化特性
- -269～350℃の耐熱性
- クリーニング可能
- 簡単な取り扱い方法

#### 主なアプリケーション

- 迷光、散乱光の除去、吸収
- 受動的な熱管理
- 光学システム全般
- IR システム
- レーザーデバイス関連

Removable surface protection film  
Black coated aluminium foil  
Adhesive  
Release liner



# Technical data \*

Optical Performance																																									
Hemispherical Reflectance	<table border="1"> <caption>Approximate data from the Hemispherical Reflectance graph</caption> <thead> <tr> <th>Wavelength (µm)</th> <th>Reflectance (%)</th> </tr> </thead> <tbody> <tr><td>0.38</td><td>2.0</td></tr> <tr><td>0.48</td><td>2.0</td></tr> <tr><td>0.58</td><td>2.0</td></tr> <tr><td>0.78</td><td>2.0</td></tr> <tr><td>0.98</td><td>2.2</td></tr> <tr><td>1.20</td><td>2.0</td></tr> <tr><td>2.00</td><td>2.2</td></tr> <tr><td>3.00</td><td>4.0</td></tr> <tr><td>4.00</td><td>2.5</td></tr> <tr><td>5.00</td><td>2.2</td></tr> <tr><td>6.00</td><td>5.0</td></tr> <tr><td>7.00</td><td>4.0</td></tr> <tr><td>8.00</td><td>2.0</td></tr> <tr><td>9.00</td><td>2.5</td></tr> <tr><td>10.00</td><td>2.0</td></tr> <tr><td>11.00</td><td>8.0</td></tr> <tr><td>12.00</td><td>10.0</td></tr> <tr><td>13.00</td><td>12.0</td></tr> <tr><td>14.00</td><td>13.0</td></tr> </tbody> </table>	Wavelength (µm)	Reflectance (%)	0.38	2.0	0.48	2.0	0.58	2.0	0.78	2.0	0.98	2.2	1.20	2.0	2.00	2.2	3.00	4.0	4.00	2.5	5.00	2.2	6.00	5.0	7.00	4.0	8.00	2.0	9.00	2.5	10.00	2.0	11.00	8.0	12.00	10.0	13.00	12.0	14.00	13.0
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Specifications																																									
Operating Temperatures																																									
without adhesive	long term -196 °C to +350°C, short term up to +400 °C																																								
with standard adhesive	long term -40 °C to +121°C, short term up to +177°C																																								
with hi-temp adhesive	long term -40 °C to +180°C, short term up to +300°C																																								
Humidity Resistance																																									
Fractal Black™	MIL-C- 48497A																																								
Fractal Black HP™	- MIL-C- 810G, Method 507.5, procedure 1, Cycle B1 - ISO/CD 12592.2 Task 10																																								
Coating Chemical Content	completely inorganic																																								
Abrasion Resistance	moderate																																								
Coating Thickness	5 µm ± 2 µm																																								
Foil Substrate																																									
material	Aluminum foil standard- other metals and plastics optional																																								
width	up to 300 mm																																								
thickness	125 µm standard - other thicknesses available																																								
Optional Adhesive Layer																																									
thickness	as per requirement - typically 25-60 microns																																								
storage and shelf life	- storage conditions – room temp (approx 21°C); 50% RH - standard shelf life – 6 months from shipment by Acktar - extended shelf life – available - inquire																																								
Delivery Form	standard-sheets, coils available on request																																								

\* The data should be considered typical/representative only

Limited Warranty: For a period of 6 months from the date of first sale, Acktar warrants this product(s) to be free from defects in manufacturing. Our obligation will be to provide replacement product for any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risks, if any, including the risk of injury, loss or damage, whether direct or consequential, arising out of the use, misuse or inability to use this product(s). ACKTAR disclaims any and all other warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose.