

# Wafer-Level Patternable Light Absorbing Coating

## Litho Black™

Acktar's Litho-Black™ is applied as a patternable light absorbing overcoat on wafers and serves in applications such as stray-light and optical cross-talk suppression, detector element geometry delineation, and detector element performance enhancement.

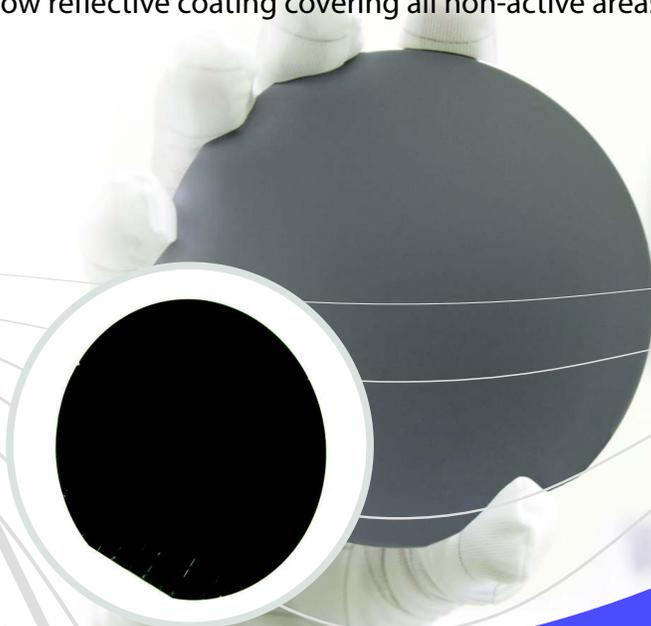
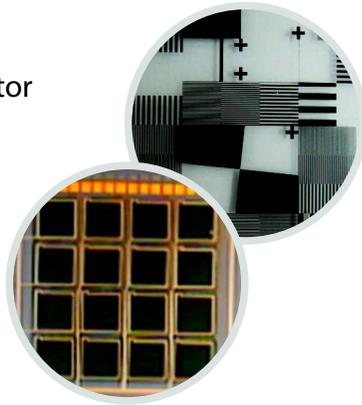
Litho-Black™ combines very high absorptance in the UV, VIS and IR wavelength bands and compatibility with photolithographic processing. Composed exclusively of non-ferrous metals and non-ferrous metal oxides, Litho-Black™ is completely inorganic and does not incorporate any organic materials or other chemicals and no such materials are used in the generation of the coatings.

### Key features and Advantages

- very low reflectivity
- tailorable electrical resistivity - conductor or insulator
- etching or lift-off compatible
- 3 micron feature sizes
- virtually any substrate - silicon, glass, etc.
- extremely low outgassing
- no particulation
- compatibility with lithographic process chemicals
- vacuum, cryogenic, and clean room compatible
- process temperature < 180 deg C

### Typical applications

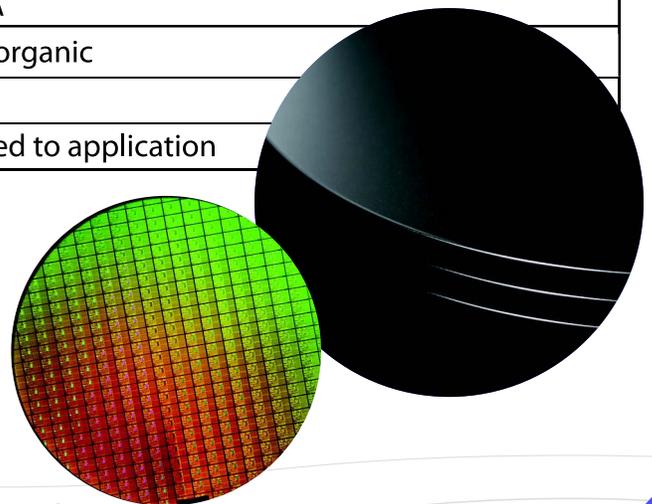
- enhanced energy absorption for pyroelectric detector elements
- accurate detector element delineation with electrically insulating - low reflective coating covering all non-active areas
- MEMS



## Technical data\*

### Litho Black™

Optical Performance	
Hemispherical Reflectance	<p>coating thickness: 2 μm</p>
<b>Additional reflectance and transmittance test results in the VIS and IR regions are available for examination on a case-by-case basis</b>	
Specifications	
Process Temperature	
Litho-Black process temperature	< 180degC
Humidity Resistance	
Litho Black™	MIL-C- 48497A
Coating Chemical Content	completely inorganic
Abrasion Resistance	moderate
Coating Thickness	0.8-5 μ - tailored to application



**\* 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.