### Mott Porous Metal Data Sheet

<table>
<thead>
<tr>
<th>Media Grade: 0.1</th>
<th>Issued: 06/22/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type: Rolled Sheet</td>
<td></td>
</tr>
<tr>
<td>Alloy: 316LSS</td>
<td></td>
</tr>
<tr>
<td>Thickness: 0.039 inches</td>
<td></td>
</tr>
</tbody>
</table>

#### Manufacturing Specifications

<table>
<thead>
<tr>
<th></th>
<th>Permeability Coefficient</th>
<th>Particle Removal Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bubble Point, inch of Hg</td>
<td>Liquid, ( K_L ) = 270</td>
<td>Testing per ASTM F795</td>
</tr>
<tr>
<td>Minimum Tensile, kpsi</td>
<td>Gas, ( K_G ) = 1900</td>
<td></td>
</tr>
<tr>
<td>Yield Strength, kpsi</td>
<td></td>
<td>90% at 0.15 ( \mu ) m</td>
</tr>
<tr>
<td>Young’s Modulus, ( x 10^6 ) psi</td>
<td></td>
<td>99% at 0.4 ( \mu ) m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>99.9% at 0.8 ( \mu ) m</td>
</tr>
</tbody>
</table>

**Liquid: Pressure Drop, psid**

\[
(K_L)(\text{Flux, gpm/ft}^2)(\text{Visc, cp})(\text{Thck, inch})
\]

**Gas: Pressure Drop, psid**

\[
(K_G)(\text{Flux, acfm/ft}^2)(\text{Visc, cp})(\text{Thck, inch})
\]

#### Flow Characteristics

**Liquid: Pressure Drop, psid**

- 100 cp
- 50 cp
- 20 cp
- 10 cp
- 5 cp
- 2 cp
- 1 cp

**Air Flow, acfm/ft²**

- 100
- 10
- 1

**Pressure Drop, psid**

- 100
- 10
- 1

**Notes:**

1. Tests run at 70 °F
2. Tests run with water, other curves generated using Liquid Formula

**Notes:**

1. Tests run with air at 70 °F
2. Tests run with upstream pressure exhausting to atmosphere

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**mott corporation**

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*Flow Characteristics on these data sheets are typical and should be used for general reference only.*
Mott Porous Metal Data Sheet

Media Grade: 0.2  
Type: Rolled Sheet  
Alloy: 316LSS  
Thickness: 0.039 inches  
Issued: 06/22/10

Manufacturing Specifications

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bubble Point, inch of Hg</td>
<td>5.0 - 6.9</td>
</tr>
<tr>
<td>Minimum Tensile, kpsi</td>
<td>26.0</td>
</tr>
<tr>
<td>Yield Strength, kpsi</td>
<td>24.0</td>
</tr>
<tr>
<td>Young’s Modulus, x 10^6 psi</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Permeability Coefficient

<table>
<thead>
<tr>
<th>Medium</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid, $K_L$</td>
<td>90</td>
</tr>
<tr>
<td>Gas, $K_G$</td>
<td>700</td>
</tr>
</tbody>
</table>

Particle Removal Efficiency

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>Testing Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Efficiency</td>
<td>Testing per ASTM F795</td>
</tr>
<tr>
<td></td>
<td>90% at 0.5 µm</td>
</tr>
<tr>
<td></td>
<td>99% at 0.9 µm</td>
</tr>
<tr>
<td></td>
<td>99.9% at 1.4 µm</td>
</tr>
</tbody>
</table>

Air Efficiency

- Tested at flux of 6 acfm/ft²
- >90% for all particle sizes
- >99% for all particle sizes
- 99.9% at 0.2 µm

Notes:
1. Tests run at 70 °F
2. Tests run with water, other curves generated using Liquid Formula

Pressure Drop Formulas:

- **Liquid: Pressure Drop, psid =**
  \[ (K_L \cdot \text{Flux, gpm/ft}^2 \cdot \text{Visc, cp} \cdot \text{Thck, inch}) \]

- **Gas: Pressure Drop, psid =**
  \[ (K_G \cdot \text{Flux, acfm/ft}^2 \cdot \text{Visc, cp} \cdot \text{Thck, inch}) \]

Flow Characteristics on these data sheets are typical and should be used for general reference only.
Media Grade: 0.5
Type: Rolled Sheet
Alloy: 316LSS
Thickness: 0.047 inches

Manufacturing Specifications
Bubble Point, inch of Hg 3.0 - 3.9
Minimum Tensile, kpsi 21.0
Yield Strength, kpsi 19.0
Young’s Modulus, x 10⁶ psi 9.5

Permeability Coefficient
Liquid, \( K_L \) 20
Gas, \( K_G \) 190

Bubble Point, inch of Hg
Liquid: \( \text{Pressure Drop, psid} = (K_L)(\text{Flux, gpm/ft}^2)(\text{Visc, cp})(\text{Thck, inch}) \)
Gas: \( \text{Pressure Drop, psid} = (K_G)(\text{Flux, acfm/ft}^2)(\text{Visc, cp})(\text{Thck, inch}) \)

Particle Removal Efficiency
Liquid Efficiency
90% at 1 µm
99% at 1.7 µm
99.9% at 2.2 µm

Air Efficiency
>90% for all particle sizes
99% at 0.25 µm
99.9% at 0.3 µm

Notes:
1 - Tests run at 70 °F
2 - Tests run with water, other curves generated using Liquid Formula
3 - Tests run with air at 70 °F
4 - Tests run with upstream pressure exhausting to atmosphere

Flow Characteristics on these data sheets are typical and should be used for general reference only.
### Manufacturing Specifications

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bubble Point, inch of Hg</td>
<td>2.0 - 2.5</td>
</tr>
<tr>
<td>Minimum Tensile, kpsi</td>
<td>17.0</td>
</tr>
<tr>
<td>Yield Strength, kpsi</td>
<td>15.0</td>
</tr>
<tr>
<td>Young’s Modulus, x 10^6 psi</td>
<td>7.4</td>
</tr>
</tbody>
</table>

### Permeability Coefficient

<table>
<thead>
<tr>
<th>Phase</th>
<th>Coefficient</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>( K_L )</td>
<td>9.2</td>
</tr>
<tr>
<td>Gas</td>
<td>( K_G )</td>
<td>75</td>
</tr>
</tbody>
</table>

**Liquid: Pressure Drop, psid**

\[
\text{Pressure Drop, psid} = (K_L)(\text{Flux, gpm/ft}^2)\text{(Visc, cp)}\text{(Thck, inch)}
\]

**Gas: Pressure Drop, psid**

\[
\text{Pressure Drop, psid} = (K_G)(\text{Flux, acfm/ft}^2)\text{(Visc, cp)}\text{(Thck, inch)}
\]

### Particle Removal Efficiency

#### Liquid Efficiency

- 90% at 1.5 µm
- 99% at 2.2 µm
- 99.9% at 3.3 µm

Testing per ASTM F795, tested at 1 gpm/ft².

#### Air Efficiency

- >90% for all particle sizes
- 99% at 0.35 µm
- 99.9% at 0.7 µm

Tested at flux of 6 acfm/ft².

### Notes:

1. Tests run at 70 °F
2. Tests run with water, other curves generated using Liquid Formula.

### Flow Characteristics

**Liquid Flow, gpm/ft² vs. Pressure Drop, psid**

**Air Flow, acfm/ft² vs. Pressure Drop, psid**

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**Notes:**

1. Tests run with air at 70 °F
2. Tests run with upstream pressure exhausting to atmosphere.

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Flow Characteristics on these data sheets are typical and should be used for general reference only.
Media Grade: 2  
Type: Rolled Sheet  
Alloy: 316LSS  
Thickness: 0.062 inches  
Issued: 06/22/10

Manufacturing Specifications
Bubble Point, inch water 17.0 - 24.0
Minimum Tensile, kpsi 13.2
Yield Strength, kpsi 10.8
Young’s Modulus, x 10^6 psi 5.7

Permeability Coefficient
Liquid, \( K_L \) 3.5
Gas, \( K_G \) 30

Particle Removal Efficiency
Liquid Efficiency
90% at 4 \( \mu \)m
99% at 5.5 \( \mu \)m
99.9% at 9 \( \mu \)m

Gas Efficiency
90% at 4 \( \mu \)m
99% at 5.5 \( \mu \)m
99.9% at 9 \( \mu \)m

Notes:
1 - Tests run at 70 °F
2 - Tests run with water, other curves generated using Liquid Formula

Notes:
1 - Tests run with air at 70 °F
2 - Tests run with upstream pressure exhausting to atmosphere

Mott Porous Metal Data Sheet

Liquid: Pressure Drop, psid =
\( (K_L) (\text{Flux, gpm/ft}^2) (\text{Visc, cp}) (\text{Thck, inch}) \)

Gas: Pressure Drop, psid =
\( (K_G) (\text{Flux, acfm/ft}^2) (\text{Visc, cp}) (\text{Thck, inch}) \)

Flow Characteristics on these data sheets are typical and should be used for general reference only.
**Mott Porous Metal Data Sheet**

**Media Grade:** 5  
**Type:** Rolled Sheet  
**Alloy:** 316LSS  
**Thickness:** 0.062 inches  
**Issued:** 06/22/10

### Manufacturing Specifications
- **Bubble Point, inch water:** 13.0 - 16.9
- **Minimum Tensile, kpsi:** 9.2
- **Yield Strength, kpsi:** 8.5
- **Young’s Modulus, x 10^6 psi:** 4.1

### Permeability Coefficient
- **Liquid, K_L:** 1.5
- **Gas, K_G:** 15

*Liquid: Pressure Drop, psid = (K_L)(Flux, gpm/ft²)(Visc, cp)(Thck, inch)*

*Gas: Pressure Drop, psid = (K_G)(Flux, acfm/ft²)(Visc, cp)(Thck, inch)*

### Particle Removal Efficiency
- **Liquid Efficiency**  
  - 90% at 5 µm  
  - 99% at 8 µm  
  - 99.9% at 13 µm

- **Gas Efficiency**  
  - 90% at 0.8 µm  
  - 99% at 2 µm  
  - 99.9% at 5 µm

### Flow Characteristics
- **Liquid Flow, gpm/ft²**  
- **Pressure Drop, psid**
  - 0.1  
  - 1  
  - 10  
  - 100

- **Air Flow, acfm/ft²**  
- **Pressure Drop, psid**
  - 0.1  
  - 1  
  - 10  
  - 100

**Notes:**
1. Tests run at 70 °F  
2. Tests run with water, other curves generated using Liquid Formula

**Notes:**
1. Tests run with air at 70 °F  
2. Tests run with upstream pressure exhausting to atmosphere

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**Flow Characteristics on these data sheets are typical and should be used for general reference only.**
### Mott Porous Metal Data Sheet

**Media Grade:** 10  
**Type:** Rolled Sheet  
**Alloy:** 316LSS  
**Thickness:** 0.062 inches  
**Issued:** 06/22/10

#### Manufacturing Specifications

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bubble Point, inch water</td>
<td>7.5 - 10.9</td>
</tr>
<tr>
<td>Minimum Tensile, kpsi</td>
<td>7.5</td>
</tr>
<tr>
<td>Yield Strength, kpsi</td>
<td>6.0</td>
</tr>
<tr>
<td>Young’s Modulus, x 10^6 psi</td>
<td>3.2</td>
</tr>
</tbody>
</table>

#### Permeability Coefficient

- **Liquid**: $K_L = 0.7$  
- **Gas**: $K_G = 7.0$

#### Particle Removal Efficiency

- **Liquid Efficiency**:  
  - 90% at 10 µm  
  - 99% at 15 µm  
  - 99.9% at 20 µm  
  
- **Gas Efficiency**:  
  - 90% at 4.5 µm  
  - 99% at 8 µm  
  - 99.9% at 13 µm

#### Flow Characteristics

- **Liquid Flow, gpm/ft²**
  - Pressure drop, psid = 
    - $K_L (\text{Flux, gpm/ft}^2) (\text{Visc, cp}) (\text{Thck, inch})$
- **Air Flow, acfm/ft²**
  - Pressure drop, psid = 
    - $K_G (\text{Flux, acfm/ft}^2) (\text{Visc, cp}) (\text{Thck, inch})$

#### Notes:

1. Tests run at 70 °F  
2. Tests run with water, other curves generated using Liquid Formula

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**Flow Characteristics on these data sheets are typical and should be used for general reference only.**
Mott Porous Metal Data Sheet

Media Grade: 20
Type: Rolled Sheet
Alloy: 316LSS
Thickness: 0.062 inches
Issued: 06/22/10

Manufacturing Specifications
- Bubble Point, inch water: 4.5 - 7.0
- Minimum Tensile, kpsi: 5.7
- Yield Strength, kpsi: 5.0
- Young’s Modulus, x 10^6 psi: 2.5

Permeability Coefficient
- Liquid, \( K_L \): 0.35
- Gas, \( K_G \): 4.7

Particle Removal Efficiency
- Liquid Efficiency: Testing per ASTM F795
  - 90% at 20 µm
  - 99% at 25 µm
  - 99.9% at 35 µm
- Air Efficiency: Tested at flux of 6 acfm/ft²
  - 90% at 8 µm
  - 99% at 12 µm
  - 99.9% at 20 µm

Notes:
1. Tests run at 70 °F
2. Tests run with water, other curves generated using \( K_L \)

Flow Characteristics on these data sheets are typical and should be used for general reference only.
### Mott Porous Metal Data Sheet

<table>
<thead>
<tr>
<th>Media Grade:</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type:</td>
<td>Rolled Sheet</td>
</tr>
<tr>
<td>Alloy:</td>
<td>316LSS</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.078 inches</td>
</tr>
</tbody>
</table>

#### Manufacturing Specifications
- Bubble Point, inch water: 2.5 - 4.0
- Minimum Tensile, kpsi: 4.0
- Yield Strength, kpsi: 3.5
- Young's Modulus, x 10^6 psi: 1.9

#### Permeability Coefficient
- Liquid, $K_L$: 0.30
- Gas, $K_G$: 2.9

#### Particle Removal Efficiency
- Liquid Efficiency
  - 90% at 25 µm
  - 99% at 35 µm
  - 99.9% at 45 µm

- Air Efficiency
  - 90% at 12 µm
  - 99% at 25 µm
  - 99.9% at 45 µm

#### Manufacturing Specifications Equations
- **Liquid: Pressure Drop, psid**
  \[ (K_L)(Flux, gpm/ft^2)(Visc, cp)(Thck, inch) \]
- **Gas: Pressure Drop, psid**
  \[ (K_G)(Flux, acfm/ft^2)(Visc, cp)(Thck, inch) \]

#### Graphs
- Liquid Flow vs. Pressure Drop
- Air Flow vs. Pressure Drop

#### Notes:
1. Tests run at 70 °F
2. Tests run with water, other curves generated using $K_L$

#### Flow Characteristics
- Flow Characteristics on these data sheets are typical and should be used for general reference only.
Mott Porous Metal Data Sheet

Media Grade: 100  
Type: Rolled Sheet  
Alloy: 316LSS  
Thickness: 0.093 inches

Issued: 06/22/10

Manufacturing Specifications

- Bubble Point, inch water: 0.5 - 1.5
- Minimum Tensile, kpsi: 1.3
- Yield Strength, kpsi: 1.0
- Young’s Modulus, x 10⁶ psi: 1.4

Permeability Coefficient

- Liquid, K_L: 0.20
- Gas, K_G: 1.9

Permeability Coefficient Calculations:

**Liquid: Pressure Drop, psid =**

\[(K_L)(Flux, gpm/ft²)(Visc, cp)(Thick, inch)\]

**Gas: Pressure Drop, psid =**

\[(K_G)(Flux, acfm/ft²)(Visc, cp)(Thick, inch)\]

Particle Removal Efficiency

- **Liquid Efficiency:** Testing per ASTM F795  
  - 90% at 50 µm  
  - 99% at 100 µm  
  - 99.9% at 150 µm  

- **Gas Efficiency:** Tested at flux of 6 acfm/ft²  
  - 90% at 20 µm  
  - 99% at 40 µm  
  - 99.9% at 100 µm

**Notes:**

1. Tests run at 70 °F
2. Tests run with water, other curves generated using K_L

**Air Efficiency**

**Notes:**

1. Tests run with air at 70 °F
2. Tests run with upstream pressure exhausting to atmosphere

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Flow Characteristics on these data sheets are typical and should be used for general reference only.