

# HBH CLASSIC BLOWN HAND FILM .51 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block
Warehouse
Irregular loads
Transportation industry
Food distribution

Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 7000 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4900 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 360%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 580%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 6.5 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 10.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 160 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 13 micron   |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .55 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 7000 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4900 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 360%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 580%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 6.5 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 10.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 160 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 13 micron   |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .60 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 7000 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4900 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 400%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 500%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 8.5 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 12.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 160 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 15.2 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .63 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 7000 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4900 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 400%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 650%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 8.5 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 12.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 160 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 16.0 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .65 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block
Warehouse
Irregular loads
Transportation industry
Food distribution

Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | Test Method |
|----------------------------------|-------------------------|-----------|-------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882   |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882   |
| Tensile Strength at Break MD     | 7000 psi                | ± 15%     | ASTM D882   |
| Tensile Strength at Break TD     | 4900 psi                | ± 15%     | ASTM D882   |
| Elongation at Break MD           | 400%                    | ± 15%     | ASTM D882   |
| Elongation at Break TD           | 650%                    | ± 15%     | ASTM D882   |
| Protrusion Puncture              | 8.5 lbs.                | ± 15%     | ASTM D5748  |
| Protrusion Puncture Energy       | 12.0 in-lb              | ± 15%     | ASTM D5748  |
| Elmendorf Tear Strength MD       | 160 g/mil               | ± 15%     | ASTM 1922   |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922   |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458  |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 16.5 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .70 mil

## **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6900 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4700 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 410%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 680%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 8.6 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 13.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 160 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 17.8 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .75 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6900 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4700 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 470%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 700%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 8.6 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 17.5 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 140 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 750 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 19.0 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM

# .80 mil

#### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6800 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4600 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 470%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 720%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 8.8 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 15.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 150 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 20.3 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .85 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4500 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 460%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 750%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 9.0 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 16.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 150 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 21.6 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM .90 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4500 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 465%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 750%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 9.2 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 17.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 150 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 500 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 22.9 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM 1.00 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6600 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4300 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 530%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 720%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 9.3 lbs.                | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 22.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 120 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 750 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 25.4 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM 1.10 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1800 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6500 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4400 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 550%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 800%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 10.5 lbs.               | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 26.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 130 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 700 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 28.0 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM 1.15 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1800 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6500 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4400 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 600%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 850%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 11.0 lbs.               | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 29.9 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 130 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 700 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 29.2 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM 1.20 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1800 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6500 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4400 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 600%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 850%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 11.0 lbs.               | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 29.9 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 130 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 700 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 30.5 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM 1.35 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | <b>Test Method</b> |
|----------------------------------|-------------------------|-----------|--------------------|
| Tensile Strength at Yield MD     | 1700 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Yield TD     | 1800 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break MD     | 6500 psi                | ± 15%     | ASTM D882          |
| Tensile Strength at Break TD     | 4400 psi                | ± 15%     | ASTM D882          |
| Elongation at Break MD           | 600%                    | ± 15%     | ASTM D882          |
| Elongation at Break TD           | 850%                    | ± 15%     | ASTM D882          |
| Protrusion Puncture              | 11.0 lbs.               | ± 15%     | ASTM D5748         |
| Protrusion Puncture Energy       | 24.0 in-lb              | ± 15%     | ASTM D5748         |
| Elmendorf Tear Strength MD       | 130 g/mil               | ± 15%     | ASTM 1922          |
| Elmendorf Tear Strength TD       | 700 g/mil               | ± 15%     | ASTM 1922          |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458         |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 34.3 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film



# HBH CLASSIC BLOWN HAND FILM 1.50 mil

### **Product Description**

General purpose, blown hand film ideal for challenging load profiles. Bi-axial molecular orientation provides strong puncture and tear resistance. Aggressive cling package designed to minimize film tails and stay secure. Available in a wide range of gauges and sizes from 11 inches to 18 inches.

### **Applications**

Brick and block Warehouse Irregular loads Transportation industry Food distribution Bagged products Boxed products Universal application



| Film Properties                  | Typical Value (English) | Tolerance | Test Method |
|----------------------------------|-------------------------|-----------|-------------|
| Tensile Strength at Yield MD     | 1700 psi                | ± 15%     | ASTM D882   |
| Tensile Strength at Yield TD     | 1800 psi                | ± 15%     | ASTM D882   |
| Tensile Strength at Break MD     | 6500 psi                | ± 15%     | ASTM D882   |
| Tensile Strength at Break TD     | 4400 psi                | ± 15%     | ASTM D882   |
| Elongation at Break MD           | 610%                    | ± 15%     | ASTM D882   |
| Elongation at Break TD           | 850%                    | ± 15%     | ASTM D882   |
| Protrusion Puncture              | 11.5 lbs.               | ± 15%     | ASTM D5748  |
| Protrusion Puncture Energy       | 27.0 in-lb              | ± 15%     | ASTM D5748  |
| Elmendorf Tear Strength MD       | 130 g/mil               | ± 15%     | ASTM 1922   |
| Elmendorf Tear Strength TD       | 700 g/mil               | ± 15%     | ASTM 1922   |
| Cling - Outside to Inside @ 225% | min 150 g/in            | ± 15%     | ASTM D5458  |

| Dimensions     | Value       | Tolerance |
|----------------|-------------|-----------|
| Core ID        | 3.05 inches | ± 0.05%   |
| Film Thickness | 38.1 micron |           |

#### Manufactured with pride in the USA and Canada by Sigma Stretch Film