Shrink Product Guide

PRODUCTIVITY, PRESENTATION AND SECURITY
# Shrink Product Guide

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<td>SHRINK FILMS</td>
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<td>26</td>
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About Bemis

Bemis Company Inc. is a multinational supplier of packaging used by leading food, medical, and pharmaceutical companies worldwide.

Bemis Company Highlights
- Public company based in Neenah, WI
- Net Sales of $5.0 Billion for 2013
- 67 locations in 11 countries
- Nearly 20,000 employees worldwide

Bemis Europe employs material science and innovation to supply Europe with high performance packaging material. Bemis Europe offers a comprehensive portfolio of flexible packaging technologies; market leading expertise for food and non-food packaging applications; integrated ISO 9000 registered capabilities from polymer chemistry to converted package. Bemis Europe is committed to business excellence based on three key disciplines:
- Technology and Innovation
- Manufacturing Excellence
- Customer focus

Through these concepts, Bemis Europe will build strong customer relationships and deliver value to customers, shareholders and employees.

Bemis Europe Highlights
- 4 manufacturing facilities
- 13 sales and distribution centers
- Strong market position in value added food/non-food packaging
- World Class assets in
  - Film extrusion (20 extrusion lines)
  - Printing (5 flexo and 2 rotogravure printing machines)
  - Bag making and converting
- Access to Bemis global resources
- Strong local R&D
- Industry-leading local technical customer service
### Why Choose Bemis Europe Shrink Products?

**For all type of meat and cheese**

- Wide range of shrink bags and shrink films covering most applications

**State of the art capabilities in production and printing**

**Servicing leading players in Europe (Meat & Cheese)**

**Best performing puncture resistance film on the market: ClearShield PRO™**

### Shrink Products - Range Overview

#### APPLICATIONS

<table>
<thead>
<tr>
<th>SHRINK BAGS</th>
<th>Fresh Meat</th>
<th>Processed Meat</th>
<th>Poultry</th>
<th>Non-gasing cheese</th>
<th>Low / medium resiping cheese</th>
<th>High resiping cheese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear-Tite®</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
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<tr>
<td>Eco-Tite®</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Clear-Tite® HD</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Pro-Tite® HD</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Eco-Tite® XT</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>ClearShield™ PRO</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Cook-Tite®</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB™</td>
<td></td>
<td></td>
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</table>

#### GAUGE

<table>
<thead>
<tr>
<th>SHRINK BAGS</th>
<th>GAUGE</th>
<th>PUNCTURE RESISTANCE</th>
<th>COOKING AND PASTEURIZATION</th>
<th>SHRINK (%)</th>
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<tbody>
<tr>
<td>Clear-Tite®</td>
<td>50µ</td>
<td>x</td>
<td>Standard</td>
<td>51/54</td>
</tr>
<tr>
<td>Eco-Tite®</td>
<td>50µ</td>
<td>x</td>
<td>High</td>
<td>40/48</td>
</tr>
<tr>
<td>Clear-Tite® HD</td>
<td>67µ</td>
<td>x</td>
<td>Very High</td>
<td>45/49</td>
</tr>
<tr>
<td>Pro-Tite® HD</td>
<td>75µ</td>
<td>x</td>
<td></td>
<td>45/50</td>
</tr>
<tr>
<td>Eco-Tite® XT</td>
<td>100µ</td>
<td>x</td>
<td></td>
<td>40/46</td>
</tr>
<tr>
<td>ClearShield™ PRO</td>
<td>100µ</td>
<td>x</td>
<td></td>
<td>21/24</td>
</tr>
<tr>
<td>Cook-Tite®</td>
<td>56µ</td>
<td>x</td>
<td></td>
<td>20/33</td>
</tr>
<tr>
<td>CB™</td>
<td>50µ</td>
<td>x</td>
<td></td>
<td>37/45</td>
</tr>
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</table>

#### SHRINK FILMS

| Flow-Tite™ | x      | x | x | x | x |
| Form-Tite™ | x      | x | x | x | x |

<table>
<thead>
<tr>
<th>SHRINK FILMS</th>
<th>GAUGE</th>
<th>PUNCTURE RESISTANCE</th>
<th>COOKING AND PASTEURIZATION</th>
<th>SHRINK (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow-Tite™</td>
<td>45µ</td>
<td>x</td>
<td></td>
<td>41/42</td>
</tr>
<tr>
<td>Form-Tite™</td>
<td>50 - 200µ</td>
<td>x</td>
<td></td>
<td>Gauge Dependent</td>
</tr>
</tbody>
</table>
Clear-Tite® Premium Presentation Barrier Shrink Bag

### FEATURES

<table>
<thead>
<tr>
<th>Seal Type</th>
<th>Seal Format</th>
<th>Presentation</th>
<th>Flexo Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Seal</td>
<td>Arc, Bar, Profile</td>
<td>Loose / Taped / ATB/ BOAR</td>
<td>Max. 10 colours</td>
</tr>
<tr>
<td>Side Seal</td>
<td>Straight, Mod. Arc, V-Arc</td>
<td>Loose / Taped / ATB</td>
<td>Max. 10 colours</td>
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### PROPERTIES

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50µ</td>
<td>19</td>
<td>6</td>
<td>51/54</td>
<td>9</td>
<td>75</td>
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### SIZE AVAILABILITY

<table>
<thead>
<tr>
<th>Seal Format</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arc Seal</td>
<td>200 - 600</td>
<td>200 - 1200</td>
</tr>
<tr>
<td>Bar Seal</td>
<td>200 - 600</td>
<td>200 - 1200</td>
</tr>
<tr>
<td>Profile Seal</td>
<td>250 - 350</td>
<td>250 - 1200</td>
</tr>
<tr>
<td>Side Seal</td>
<td>90 - 350</td>
<td>200 - 600</td>
</tr>
<tr>
<td>Mod. Arc Seal</td>
<td>90 - 350</td>
<td>200 - 600</td>
</tr>
<tr>
<td>V-Arc Seal</td>
<td>120 - 350</td>
<td>300 - 600</td>
</tr>
</tbody>
</table>

**ADVANTAGES AT A GLANCE**

**Productivity**
- Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
- Bags can be taped for automatic loading, or presented in a roll (BOAR) for ease of handling
- High shrink minimises weight loss & maximises shelf life
- Long shelf life benefits scheduling and warehousing

**Product Presentation**
- Very high shrink gives a skin tight look
- Optical properties enable the packed product to be shown off at its best
- An optimal presentation can be found from the wide range of seal formats

**Pack Security**
- Protection for most cheese and boneless meats
- High oxygen and moisture barrier keeps the product fresh
- Strong seals protect the product during handling and transportation

**Processors**
- Reduced leaker rates
- Automatic loading
- Minimal weight loss
- Long shelf life

**Brand Owners & Retailers**
- Tight shrunk appearance
- High barrier for freshness
- Printed for branding & promotion

**Consumers**
- Confidence in the freshness
- Clear visibility of the food

**Fresh Meat**
- Processed Meat
- Non-gasing cheese
- Poultry

50µ - 3 Layer
PE/PVdC/PE
Flexographic Print
Eco-Tite® Premium Presentation Barrier Shrink Bag

**Features**

- **Seal Type**: End Seal (32), Side Seal (31)
- **Seal Format**: Arc, Bar, Straight, Mod. Arc, V-Arc
- **Presentation**: Loose / Taped / ATB / BOAR
- **Flexo Printed**: Max. 10 colours

**Size Availability**

- **E/S Lengths**: 200 mm - 1200 mm in 25 mm increments

**Properties**

- **Gauge**: 50µ
- **Oxygen Barrier (cc/m²/day)**: 12
- **Moisture Barrier (g/m²/day)**: 8
- **Shrink (%)**: 40/48
- **Haze (%)**: 8
- **Gloss (Hu)**: 83

**Advantages at a Glance**

- **Productivity**
  - Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
  - Bags can be taped for automatic loading, or presented in a roll (BOAR) for ease of handling
  - Bag tails can overlap during sealing
  - Long shelf life benefits scheduling and warehousing

- **Product Presentation**
  - Very high shrink gives a skin tight look
  - Optical properties enable the packed product to be shown off at its best
  - An optimal presentation can be found from the wide range of seal formats

- **Pack Security**
  - Protection for most cheese and boneless meats
  - High oxygen and moisture barrier keeps the product fresh
  - Sealing through wet/greasy contamination is possible

- **Processors**
  - Reduced leaker rates
  - Automatic loading
  - Minimal weight loss
  - Long shelf life

- **Brand Owners & Retailers**
  - Tight shrunk appearance
  - High barrier for freshness
  - Printed for branding & promotion

- **Consumers**
  - Confidence in the freshness
  - Clear visibility of the food

**Applications**

- **Fresh Meat**
- **Processed Meat**
- **Non-gasing cheese**
- **Poultry**
Clear-Tite® HD Medium Abuse Barrier Shrink Bag

**Features**

<table>
<thead>
<tr>
<th>Seal Type</th>
<th>Seal Format</th>
<th>Presentation</th>
<th>Flexo Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Seal (52)</td>
<td>Arc, Bar, Profile</td>
<td>Loose / Taped / ATB / BOAR</td>
<td>Max. 10 colours</td>
</tr>
<tr>
<td>Side Seal (51)</td>
<td>Straight, Mod. Arc, V-Arc</td>
<td>Loose / Taped / ATB</td>
<td>Max. 10 colours</td>
</tr>
</tbody>
</table>

**Size Availability**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E/S Lengths</td>
<td>200 mm - 1200 mm in 25 mm increments</td>
</tr>
</tbody>
</table>

**Seal Format**

<table>
<thead>
<tr>
<th>Seal Format</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arc Seal</td>
<td>200 - 450</td>
<td>200 - 1200</td>
</tr>
<tr>
<td>Bar Seal</td>
<td>200 - 500</td>
<td>200 - 1200</td>
</tr>
<tr>
<td>Profile Seal</td>
<td>230 - 350</td>
<td>250 - 1200</td>
</tr>
<tr>
<td>Side Seal</td>
<td>90 - 350</td>
<td>90 - 350</td>
</tr>
<tr>
<td>Mod. Arc Seal</td>
<td>90 - 350</td>
<td>90 - 350</td>
</tr>
<tr>
<td>V-Arc Seal</td>
<td>120 - 350</td>
<td>120 - 350</td>
</tr>
</tbody>
</table>

**Properties**

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67μ</td>
<td>16</td>
<td>8</td>
<td>45/49</td>
<td>9</td>
<td>70</td>
</tr>
</tbody>
</table>

**Advantages at a Glance**

**Productivity**
- Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
- Bags can be taped for automatic loading, or presented in a roll (BOAR) for ease of handling
- High shrink minimises weight loss & maximises shelf life
- Long shelf life benefits scheduling and warehousing

**Product Presentation**
- Very high shrink gives a skin tight look
- Optical properties enable the packed product to be shown off at its best
- An optimal presentation can be found from the wide range of seal formats

**Pack Security**
- Protection for hard surface cheese and meats
- High oxygen and moisture barrier keeps the product fresh
- Strong seals protect the product during handling and transportation

**Processors**
- Reduced leaker rates
- Automatic loading
- Minimal weight loss
- Long shelf life

**Brand Owners & Retailers**
- Tight shrunk appearance
- High barrier for freshness
- Printed for branding & promotion

**Consumers**
- Confidence in the freshness
- Clear visibility of the food

**Flexographic Print**

- Fresh Meat
- Processed Meat
- Non-gasing cheese
- Poultry
Pro-Tite® HD Medium Abuse Barrier Shrink Bag

75µ - 3 Layer
PE/PVdC/PE
Hard Surface Products
Flexographic Print

FEATURES

**Product Type** | **Seal Type** | **Seal Format** | **Presentation** | **Flexo Printed**
--- | --- | --- | --- | ---
End Seal (52) | Arc, Bar, Profile | Loose / Taped / ATB / BOAR | Max. 10 colours
Side Seal (51) | Straight, Mod. Arc, V-Arc | Loose / Taped / ATB | Max. 10 colours

PROPERTIES

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>75µ</td>
<td>19</td>
<td>6</td>
<td>45/50</td>
<td>12</td>
<td>72</td>
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</tbody>
</table>

ADVANTAGES AT A GLANCE

**Productivity**
- Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
- Bags can be taped for automatic loading
- High shrink minimises weight loss & maximises shelf life
- Competes well with competitive bags of a higher gauge

**Product Presentation**
- Very high shrink gives a skin tight look
- Optical properties enable the packed product to be shown off at its best
- An optimal presentation can be found from the wide range of seal formats

**Pack Security**
- High puncture and abrasion resistance for hard surface cheese and meats
- High oxygen and moisture barrier keeps the product fresh
- Strong seals protect the product during handling and transportation

**Size Availability**

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E/S Lengths</td>
<td>200 mm - 1200 mm in 25 mm increments</td>
</tr>
</tbody>
</table>

**Seal Format**
- Arc Seal
- Bar Seal
- Profile Seal
- Side Seal
- Mod. Arc Seal
- V-Arc Seal

<table>
<thead>
<tr>
<th>Width (mm)</th>
<th>200 - 450</th>
<th>200 - 500</th>
<th>230 - 350</th>
<th>90 - 350</th>
<th>90 - 350</th>
<th>120 - 350</th>
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</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>200 - 1200</td>
<td>200 - 1200</td>
<td>250 - 1200</td>
<td>200 - 500</td>
<td>200 - 500</td>
<td>300 - 500</td>
</tr>
</tbody>
</table>

**Processors**
- Reduced leaker rates
- Automatic loading
- Minimal weight loss
- Long shelf life

**Brand Owners & Retailers**
- Tight shrunk appearance
- High barrier for freshness
- Printed for branding & promotion

**Consumers**
- Confidence in the freshness
- Clear visibility of the food

**Advantages at a Glance**
- Productivity
  - Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
  - Bags can be taped for automatic loading
  - High shrink minimises weight loss & maximises shelf life
  - Competes well with competitive bags of a higher gauge
- Product Presentation
  - Very high shrink gives a skin tight look
  - Optical properties enable the packed product to be shown off at its best
  - An optimal presentation can be found from the wide range of seal formats
- Pack Security
  - High puncture and abrasion resistance for hard surface cheese and meats
  - High oxygen and moisture barrier keeps the product fresh
  - Strong seals protect the product during handling and transportation

**Features**

- Seal Type
- Seal Format
- Presentation
- Flexo Printed

- Tubing Widths (S/S Lengths)

- E/S Lengths
  - 200 mm - 1200 mm in 25 mm increments

- Seals
  - Arc Seal
  - Bar Seal
  - Profile Seal
  - Side Seal
  - Mod. Arc Seal
  - V-Arc Seal

- Width (mm)
  - 200 - 450
  - 200 - 500
  - 230 - 350
  - 90 - 350
  - 90 - 350
  - 120 - 350

- Length (mm)
  - 200 - 1200
  - 200 - 1200
  - 250 - 1200
  - 200 - 500
  - 200 - 500
  - 300 - 500

- Oxygen Barrier (cc/m²/day)
- Moisture Barrier (g/m²/day)
- Shrink (%)
- Haze (%)
- Gloss (Hu)
**ADVANTAGES AT A GLANCE**

**Productivity**
- Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
- Bags can be taped for automatic loading
- Long shelf life benefits scheduling and warehousing

**Product Presentation**
- Very high shrink gives a skin tight look
- Optical properties enable the packed product to be shown off at its best
- An optimal presentation can be found from the wide range of seal formats

**Pack Security**
- Very high puncture resistance gives protection for high value cuts of bone-in meat
- High oxygen and moisture barrier keeps the product fresh

**Features**

<table>
<thead>
<tr>
<th>Seal Type</th>
<th>Seal Format</th>
<th>Presentation</th>
<th>Flexo Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Seal</td>
<td>Arc, Bar</td>
<td>Loose / Taped</td>
<td>Max. 10 colours</td>
</tr>
<tr>
<td>Side Seal</td>
<td>Straight</td>
<td>Loose / Taped</td>
<td>Max. 10 colours</td>
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**Size Availability**

<table>
<thead>
<tr>
<th>Tubing Widths (S/S Lengths)*</th>
<th>250 - 300 - 350 - 400 - 425 - 450 - 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>E/S Lengths</td>
<td>250 mm - 1200 mm in 25 mm increments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seal Format</th>
<th>Arc Seal</th>
<th>Bar Seal</th>
<th>Side Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (mm)</td>
<td>250 - 450</td>
<td>250 - 500</td>
<td>90 - 350</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>250 - 1200</td>
<td>250 - 1200</td>
<td>300 - 500</td>
</tr>
</tbody>
</table>

* Not all widths held in stock.

**Properties**

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100µ</td>
<td>12</td>
<td>N/A</td>
<td>40/46</td>
<td>8</td>
<td>60</td>
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</tbody>
</table>

**Processors**
- Reduced leaker rates
- Automatic loading
- Minimal weight loss
- Long shelf life

**Brand Owners & Retailers**
- Tight shrunk appearance
- High barrier for freshness
- Printed for branding & promotion

**Consumers**
- Confidence in the freshness
- Clear visibility of the food

**Fresh Meat**
**Processed Meat**
**Poultry**
**Non-gasing cheese**
ClearShield™ PRO Extreme High Abuse Shrink Bags

**FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>End Seal (92)</th>
<th>Arc, Bar, Profile</th>
<th>Presentation</th>
<th>Flexo Printed</th>
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<tbody>
<tr>
<td>Seal Type</td>
<td>End Seal (92)</td>
<td>Arc, Bar, Profile</td>
<td>Loose / Taped / ATB</td>
<td>Max. 10 colours</td>
</tr>
<tr>
<td>Seal Format</td>
<td>Arc Seal</td>
<td>Bar Seal</td>
<td>Profile Seal</td>
<td>Side Seal</td>
</tr>
<tr>
<td>Presentation</td>
<td>Loose / Taped / ATB</td>
<td>Loose / Taped / ATB</td>
<td>Loose / Taped / ATB</td>
<td>Max. 10 colours</td>
</tr>
<tr>
<td>Flexo Printed</td>
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</tr>
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**SIZE AVAILABILITY**

<table>
<thead>
<tr>
<th>Tubing Widths (S/S Lengths)*</th>
<th>250 - 280 - 300 - 350 - 400 - 450 - 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>E/S Lengths</td>
<td>250 mm - 1200 mm in 25 mm increments</td>
</tr>
</tbody>
</table>

**Seal Format**

- **Width (mm)**
  - 250 - 450
  - 250 - 500
  - 250 - 350
  - 150 - 350

- **Length (mm)**
  - 250 - 1200
  - 250 - 1200
  - 250 - 1200
  - 250 - 500

*Not all widths held in stock.

**PROPERTIES**

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>100µ</td>
<td>&lt; 21</td>
<td>&lt; 5</td>
<td>21/24</td>
<td>8.5</td>
<td>77</td>
</tr>
</tbody>
</table>

**ADVANTAGES AT A GLANCE**

- **Productivity**
  - Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
  - Bone guard can be avoided in many instances
  - Long shelf life benefits scheduling and warehousing

- **Product Presentation**
  - Good cavity contouring optimises presentation and shelf life
  - Optical properties enable the packed product to be shown off at its best

- **Pack Security**
  - Excellent puncture resistance gives protection for high value cuts of bone-in meat
  - Exceptional abrasion resistance protects products in transit
  - High oxygen and moisture barrier keeps the product fresh

- **Processors**
  - Reduced leaker rates
  - Minimise bone guard
  - Minimal weight loss
  - Long shelf life

- **Brand Owners & Retailers**
  - Tight shrunk appearance
  - High barrier for freshness
  - Printed for branding & promotion

- **Consumers**
  - Confidence in the freshness
  - Clear visibility of the food
**Cook-Tite®** Cook-in & Pasteurising Barrier Shrink Bag

### FEATURES

<table>
<thead>
<tr>
<th>Seal Type</th>
<th>Seal Format</th>
<th>Presentation</th>
<th>Flexo Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Seal (82)</td>
<td>Arc, Bar</td>
<td>Loose / Taped</td>
<td>Max. 10 colours</td>
</tr>
<tr>
<td>Side Seal (81)</td>
<td>Straight</td>
<td>Loose / Taped</td>
<td>Max. 10 colours</td>
</tr>
</tbody>
</table>

### SIZE AVAILABILITY

<table>
<thead>
<tr>
<th>Tubing Widths (S/S Lengths)</th>
<th>E/S Lengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 - 230 - 250 - 280 - 300 - 325 - 350 - 375 - 400 - 450 - 475 - 500</td>
<td>200 mm - 1200 mm in 25 mm increments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seal Format</th>
<th>Arc Seal</th>
<th>Bar Seal</th>
<th>Side Seal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (mm)</td>
<td>200 - 450</td>
<td>200 - 500</td>
<td>90 - 350</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>200 - 1200</td>
<td>200 - 1200</td>
<td>200 - 500</td>
</tr>
</tbody>
</table>

* Not all widths held in stock.

### PROPERTIES

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>56µ</td>
<td>9</td>
<td>6</td>
<td>20/33</td>
<td>9</td>
<td>70</td>
</tr>
</tbody>
</table>

### ADVANTAGES AT A GLANCE

**Productivity**
- Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity
- Meat adhesion prevents cook-out maximising yield
- Shrink maximises shelf life
- Long shelf life benefits scheduling and warehousing

**Product Presentation**
- Shrink gives a skin tight look
- Optical properties enable the packed product to be shown off at its best

**Pack Security**
- Protection for boneless cooked meats
- High oxygen and moisture barrier keeps the product fresh

**Processors**
- Minimise cooking losses
- 85°C cooking for up to 6 hours
- 95°C surface pasteurisation for 15 minutes
- Long shelf life

**Brand Owners & Retailers**
- Tight shrunk appearance
- High barrier for freshness
- Printed for branding & promotion
- Confidence in the freshness
- Clear visibility of the food
- Printed for branding & promotion

**Consumers**
- Confidence in the freshness
- Clear visibility of the food

**Advantages at a Glance**
- Productivity
- Product Presentation
- Pack Security
- Processors
- Brand Owners & Retailers
- Consumers

**Cook & Ship and Cook & Strip**
**Flexographic Print**

**PVdC free formulation**

**Cook & Ship**

**Cook & Strip**

**Flexographic Print**

**56µ**

**Fresh Meat**

**Processed Meat**

**Poultry**
CB™ Respiring Cheese Shrink Bag

**FEATURES**

<table>
<thead>
<tr>
<th>Seal Type</th>
<th>Seal Format</th>
<th>Presentation</th>
<th>Flexo Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>End Seal (22 &amp; 52)</td>
<td>Arc, Bar</td>
<td>Loose / Taped / ATB / BOAR</td>
<td>Max. 10 colours</td>
</tr>
<tr>
<td>Side Seal (21 &amp; 51)</td>
<td>Straight, Mod. Arc, V-Arc</td>
<td>Loose / Taped / ATB</td>
<td>Max. 10 colours</td>
</tr>
</tbody>
</table>

**PROPERTIES**

<table>
<thead>
<tr>
<th>CB</th>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>50µ</td>
<td>100*</td>
<td>20</td>
<td>37/45</td>
<td>8</td>
<td>71</td>
</tr>
<tr>
<td>50</td>
<td>50µ</td>
<td>300*</td>
<td>20</td>
<td>37/45</td>
<td>8</td>
<td>71</td>
</tr>
</tbody>
</table>

* Oxygen permeability will vary according to humidity.

**ADVANTAGES AT A GLANCE**

**Productivity**
- Bags are fully compatible with existing packaging equipment for low leaker rates and high productivity.
- Bags can be taped for automatic loading.
- Designed to allow CO₂ to escape while maintaining barrier to moisture and O₂.
- Long shelf life benefits scheduling and warehousing.

**Product Presentation**
- Very high shrink gives a skin tight look.
- Excellent optical properties with red and yellow pigmented options.
- An optimal presentation can be found from the wide range of seal formats.

**Pack Security**
- Controlled permeability prevents blown packs.
- Oxygen and moisture barrier keep the cheese fresh.
- Sealing through wet contamination is possible.

**SIZE AVAILABILITY**

**Tubing Widths (S/S Lengths)**

**E/S Lengths**
- 200 mm - 1200 mm in 25 mm increments

**Seal Format**

<table>
<thead>
<tr>
<th>Seal Format</th>
<th>Width (mm)</th>
<th>Length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arc Seal</td>
<td>200 - 450</td>
<td>200 - 1200</td>
</tr>
<tr>
<td>Bar Seal</td>
<td>200 - 550</td>
<td>200 - 550</td>
</tr>
<tr>
<td>Side Seal</td>
<td>90 - 350</td>
<td>200 - 550</td>
</tr>
<tr>
<td>Mod. Arc Seal</td>
<td>90 - 350</td>
<td>300 - 550</td>
</tr>
<tr>
<td>V-Arc Seal</td>
<td>120 - 350</td>
<td>300 - 550</td>
</tr>
</tbody>
</table>

* Not all widths held in stock.

**Processors**
- Reduced leaker rates.
- Automatic loading.
- Minimal weight loss.
- Long shelf life.

**Brand Owners & Retailers**
- Tight shrunk appearance.
- Red and yellow options.
- Printed for branding & promotion.

**Consumers**
- Confidence in the freshness.
- Clear visibility of the food.

Low respiring Cheese
High respiring Cheese

50µ - 5 Layer
PVdC free formulation
CB20 - Low Gassing (Edam, Gouda...)
CB50 - High Gassing (Emmental, Tilsit...)

Bemis®
Flow-Tite™ Flow Wrap Barrier Shrink Film

45µ - 7 Layer
PVdC free formulation
Flexographic Print

**ADVANTAGES AT A GLANCE**

**Productivity**
- Films are fully compatible with existing equipment designed to run shrinkable films
- Can be made into a bag (2 seal) for evacuation and sealing, or a full 3 seal pack
- Product can be loaded automatically

**Product Presentation**
- High shrink gives a skin tight look
- Optical properties enable the packed product to be shown off at its best

**Pack Security**
- Protection for most cheeses and boneless meats
- High oxygen and moisture barrier keeps the product fresh
- Strong seals protect the product during handling and transportation
- High film strength gives excellent puncture resistance

**FEATURES**

<table>
<thead>
<tr>
<th>Roll Width (mm)</th>
<th>Roll Length (m)</th>
<th>Core (mm)</th>
<th>Flexo Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 725</td>
<td>Up to 1200</td>
<td>76 or 152</td>
<td>Max. 10 colours</td>
</tr>
</tbody>
</table>

**PROPERTIES**

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
<th>Basis Weight (g/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45µ</td>
<td>17</td>
<td>15</td>
<td>41/42</td>
<td>6</td>
<td>70</td>
<td>43</td>
</tr>
</tbody>
</table>

**Processors**
- Low leaker rates
- Automated line
- Minimal weight loss
- Long shelf life

**Brand Owners & Retailers**
- Tight shrunk appearance
- High barrier for freshness
- Printed for branding & promotion

**Consumers**
- Confidence in the freshness
- Clear visibility of the food

Fresh Meat | Processed Meat | Cheese | Poultry
Form-Tite™ Thermoforming Shrink Film

Features

<table>
<thead>
<tr>
<th>Roll Width (mm)</th>
<th>Roll Length (m)</th>
<th>Core (mm)</th>
<th>Flexo Printed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 600</td>
<td>Up to 1200</td>
<td>76 or 152</td>
<td>Max. 10 colours</td>
</tr>
</tbody>
</table>

Properties

<table>
<thead>
<tr>
<th>Gauge</th>
<th>Oxygen Barrier (cc/m²/day)</th>
<th>Moisture Barrier (g/m²/day)</th>
<th>Shrink (%)</th>
<th>Haze (%)</th>
<th>Gloss (Hu)</th>
<th>Basis Weight (g/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50µ</td>
<td>&lt; 15.5</td>
<td>&lt; 12</td>
<td>36/37</td>
<td>7</td>
<td>85</td>
<td>48.7</td>
</tr>
<tr>
<td>75µ</td>
<td>&lt; 15.5</td>
<td>&lt; 12</td>
<td>38/44</td>
<td>7</td>
<td>85</td>
<td>73.0</td>
</tr>
<tr>
<td>100µ</td>
<td>&lt; 15.5</td>
<td>&lt; 12</td>
<td>36/43</td>
<td>7</td>
<td>85</td>
<td>97.4</td>
</tr>
<tr>
<td>125µ</td>
<td>&lt; 15.5</td>
<td>&lt; 12</td>
<td>34/41</td>
<td>7</td>
<td>85</td>
<td>121.8</td>
</tr>
<tr>
<td>150µ</td>
<td>&lt; 15.5</td>
<td>&lt; 12</td>
<td>34/41</td>
<td>7.5</td>
<td>85</td>
<td>139.0</td>
</tr>
<tr>
<td>200µ</td>
<td>&lt; 12.0</td>
<td>&lt; 12</td>
<td>32/39</td>
<td>7.5</td>
<td>85</td>
<td>184.0</td>
</tr>
</tbody>
</table>

Advantages at a Glance

Productivity
- Films are fully compatible with existing equipment designed to run shrinkable films
- Easy to load product
- Product can be loaded automatically

Product Presentation
- Very high shrink gives a skin tight look
- Ideal for regular shaped products
- Optical properties enable the packed product to be shown off at its best

Pack Security
- The range of gauges protect a variety of products through to very high abuse requirements
- High oxygen and moisture barrier keeps the product fresh
- Strong seals protect the product during handling and transportation

Processors
- Low leaker rates
- Labour saving systems
- Minimal weight loss
- Long shelf life

Brand Owners & Retailers
- Tight shrunk appearance
- High barrier for freshness
- Printed for branding & promotion

Consumers
- Confidence in the freshness
- Clear visibility of the food

EVOH Barrier
Film range for standard to high abuse packing
Flexographic Print

Fresh Meat
Processed Meat
Cheese
Poultry

Types of Meat
- Fresh Meat
- Processed Meat
- Poultry
- Cheese
Printing Capabilities - Shrink Bags and Films

A brief guide
Bemis Europe has a 10 colour flexographic press where products are surface printed using photopolymer printing plates. Utilising the latest advanced technology the press is capable of printing the entire Bemis Europe product range with extreme efficiency and colour accuracy.

Along with the press the print department also incorporates a solvent recovery system and the latest in ‘state of the art’ ink blending technology. An integrated on-site graphics studio allows accurate interaction with customers to speed up the pre-press process.

Spot Colours vs Process
Spot colour is a term referred to when a colour is specific and a Pantone® value has been applied. Process colours are used to produce effects such as images or special tonal colours.

Process colours are CYAN, MAGENTA, YELLOW AND BLACK

“Increase your Point of Sale impact with Bemis’ new 10 COLOUR FLEXOGRAPHIC PRINTING”

Guide to printing on shrink bag

<table>
<thead>
<tr>
<th>FEATURES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Colours Max</td>
<td>10</td>
</tr>
<tr>
<td>END SEAL</td>
<td></td>
</tr>
<tr>
<td>Min Repeat in Register (bag length)</td>
<td>200 mm</td>
</tr>
<tr>
<td>Max Repeat in Register (bag length)</td>
<td>800 mm</td>
</tr>
<tr>
<td>Max width on Registered Print Front/Back</td>
<td>475 mm</td>
</tr>
<tr>
<td>Print Distance from edge of tubing</td>
<td>10 mm</td>
</tr>
<tr>
<td>SIDE SEAL</td>
<td></td>
</tr>
<tr>
<td>Min Repeat in Register (bag width)</td>
<td>90 mm</td>
</tr>
<tr>
<td>Max Repeat in Registered Print Front/Back</td>
<td>350 mm</td>
</tr>
<tr>
<td>Max length on Registered Print Front/Back</td>
<td>475 mm</td>
</tr>
</tbody>
</table>

The ‘Green’ box is the safe printing area. If required by a customer or agency Bemis Europe can supply a KEYLINE drawing to aid designers. Print should not extend past 10 mm from edge of film and 50 mm to top of bag.

This is a typical side seal layout. The ‘Green’ box is the safe printing area. If required by a customer or agency Bemis Europe can supply a KEYLINE drawing to aid designers. Print should not extend past 10 mm from the seal and the bottom of the bag and 50 mm to top of bag.
The information stated in this document is correct at the time of going to press.
Bemis Europe reserves the right to make any changes without prior notification to any of this document.