About Treofan

The Treofan Group is a leading global manufacturer of biaxially oriented polypropylene films (BOPP films) for packaging, label, tobacco and technical applications.

Treofan has over 40 years of experience in the BOPP market and is a supplier of high-quality BOPP products and tailor-made, intelligent solutions – in over 90 countries.

Treofan has positioned itself as a worldwide premium provider with profound film expertise. Numerous patents prove the company’s innovative strength. Treofan delivers solutions that are globally applicable, easy to handle, market differentiated and at the same time economical.

In a network with partners, Treofan develops application-oriented solutions and new service concepts while providing first-class technical service to customers all over the world.

Packaging Films

Treofan delivers high-quality film solutions for major brands in the consumer goods industry worldwide.

Our exceptional range of packaging solutions have been carefully tailored and optimised over time.

We constantly strive to meet the high performance and cost-effective needs of our customers.
Content

Product Range

- Transparent Films 4-6
- Solid White Films 7
- White Voided Films 7-9
- Coated Films 10-12
- Metallised Films 13-15

Application Overview 16-19

Layer Description 20

Certifications 21

Contact 22
## Co-Extruded

### Specified quality
Density 0.91 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>GND</td>
<td></td>
<td>20</td>
<td>18.2</td>
<td>54.9</td>
<td>Heat sealable BOPP film for a wide range of applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
<td>22.8</td>
<td>44.0</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>30</td>
<td>27.3</td>
<td>36.6</td>
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<td></td>
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</tr>
<tr>
<td>GEA</td>
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<td>20</td>
<td>18.2</td>
<td>54.9</td>
<td>Tailored slip, untreated, for overwrap applications</td>
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<tr>
<td></td>
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<td>25</td>
<td>22.8</td>
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</table>

## Low Sealing Temperature

### For high speed applications
Density 0.91 g/cm³

<table>
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<th>Type</th>
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<tbody>
<tr>
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<td></td>
<td>20</td>
<td>18.2</td>
<td>54.9</td>
<td>Very wide sealing range, untreated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
<td>22.8</td>
<td>44.0</td>
<td></td>
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<tr>
<td></td>
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<td>30</td>
<td>27.3</td>
<td>36.6</td>
<td></td>
</tr>
<tr>
<td>HND</td>
<td></td>
<td>20</td>
<td>18.2</td>
<td>54.9</td>
<td>Very wide sealing range; for high speed HFFS packaging lines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
<td>22.8</td>
<td>44.0</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>30</td>
<td>27.3</td>
<td>36.6</td>
<td></td>
</tr>
<tr>
<td>HLD</td>
<td></td>
<td>20</td>
<td>18.2</td>
<td>54.9</td>
<td>Very wide sealing range; for very high speed HFFS packaging lines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
<td>22.8</td>
<td>44.0</td>
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<tr>
<td></td>
<td></td>
<td>30</td>
<td>27.3</td>
<td>36.6</td>
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</tr>
</tbody>
</table>
# Matt

For lamination  
Density 0.88 g/cm³

<table>
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<tr>
<th>Type</th>
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<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
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<tbody>
<tr>
<td>GNR</td>
<td></td>
<td>20</td>
<td>17.6</td>
<td>56.8</td>
<td>Paper-like appearance, soft-touch effect</td>
</tr>
<tr>
<td>GCR</td>
<td></td>
<td>20</td>
<td>17.6</td>
<td>56.8</td>
<td>Paper-like appearance and coldseal release film</td>
</tr>
<tr>
<td>GPR</td>
<td></td>
<td>20 25 30</td>
<td>17.6 22.0 26.4</td>
<td>56.8 45.5 37.9</td>
<td>Paper-like appearance, heat sealable, offers a wide range of design options</td>
</tr>
</tbody>
</table>
## Transparent Films

### Non Sealable

**High gloss, for packaging and lamination**
Density 0.91 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
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<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
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<tbody>
<tr>
<td>NNA</td>
<td>20</td>
<td>18.2 54.9</td>
<td>Non treated release film for surface protection of other materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NND</td>
<td>20</td>
<td>18.2 54.9</td>
<td>One side treated; for high gloss lamination; cold-seal release film</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>22.8 44.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NNH</td>
<td>20</td>
<td>18.2 54.9</td>
<td>Both sides treated; for high gloss lamination; cold-seal release film</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PND</td>
<td>4</td>
<td>3.6 275.0</td>
<td>Ultra thin film for gloss lamination</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>5.6 177.0</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>8</td>
<td>7.4 134.0</td>
<td></td>
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</tr>
</tbody>
</table>
## Solid White

**Special optical appearance**  
Density 0.96 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
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<th>Unit weight (g/m²)</th>
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<th>Description/Application</th>
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<tbody>
<tr>
<td>WTD</td>
<td></td>
<td>20</td>
<td>19.2</td>
<td>52.1</td>
<td>For high speed HFFS packaging lines, enhanced whiteness, mechanical strength and sealability. For cold- and heat-seal applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
<td>24.0</td>
<td>41.7</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>28.8</td>
<td>34.7</td>
<td></td>
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<td></td>
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<td>33.6</td>
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<td></td>
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<td>40</td>
<td>38.4</td>
<td>26.0</td>
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<table>
<thead>
<tr>
<th>Type</th>
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<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>WND</td>
<td></td>
<td>30</td>
<td>28.8</td>
<td>34.7</td>
<td>Suitable for both HFFS and VFFS packaging machines, enhanced whiteness, mechanical strength and sealability. For cold- and heat-seal applications</td>
</tr>
</tbody>
</table>

## Voided

**For VFFS and HFFS applications**  
Density 0.72 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
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<th>Yield (m²/kg)</th>
<th>Description/Application</th>
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</thead>
<tbody>
<tr>
<td>HGP</td>
<td></td>
<td>34</td>
<td>24.5</td>
<td>40.8</td>
<td>One side treated with pearlescent effect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
<td>28.8</td>
<td>34.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
<td>36.0</td>
<td>27.8</td>
<td></td>
</tr>
</tbody>
</table>
## Gloss Voided

**Specially developed for coldseal applications**  
Density 0.75 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHD</td>
<td></td>
<td>28</td>
<td>21.5</td>
<td>46.5</td>
<td>High gloss; one side treated; temper-evident</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35</td>
<td>26.0</td>
<td>38.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
<td>30.0</td>
<td>33.3</td>
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<td></td>
<td></td>
<td>50</td>
<td>37.0</td>
<td>27.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>60</td>
<td>45.0</td>
<td>22.2</td>
<td></td>
</tr>
</tbody>
</table>

| SHH  |           | 28                     | 21.5               | 46.5          | High gloss; both sides treated for lamination |
|      |           | 40                     | 30.0               | 33.3          |                         |

## Specially developed for low heatseal applications

Density 0.75 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>STD</td>
<td></td>
<td>28</td>
<td>21.5</td>
<td>46.5</td>
<td>High gloss; very wide sealing range for high speed HFFS packaging machines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35</td>
<td>26.0</td>
<td>38.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
<td>30.0</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>45</td>
<td>33.5</td>
<td>29.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
<td>37.0</td>
<td>27.0</td>
<td></td>
</tr>
</tbody>
</table>

| SVD  |           | 28                     | 21.0               | 47.6          | High gloss and whiteness; specially developed for vertical heatseal application; easy opening |
|      |           |                        |                    |               |                         |
## Gloss Voided

**Balanced yield and stiffness**
Density 0.70 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>QCD</td>
<td></td>
<td>35</td>
<td>23.5</td>
<td>42.6</td>
<td>For coldseal applications; reduced splicing</td>
</tr>
<tr>
<td>QCH</td>
<td></td>
<td>35</td>
<td>23.5</td>
<td>42.6</td>
<td>For coldseal applications; both sides treated for lamination; reduced splicing</td>
</tr>
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</table>

## Improved yield
Density 0.62 g/cm³

<table>
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<th>Type</th>
<th>Structure</th>
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<th>Description/Application</th>
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<tbody>
<tr>
<td>VLD</td>
<td></td>
<td>40</td>
<td>23.5</td>
<td>42.6</td>
<td>Specifically developed for high speed packaging on HFFS machines (e.g. ice cream, chocolate bars, etc.)</td>
</tr>
</tbody>
</table>
## Coated Films

### Transparent Coated

**Acrylic / Acrylic**  
Density 0.89 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
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<th>Description/Application</th>
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<tbody>
<tr>
<td>CLG</td>
<td>20</td>
<td>17.7</td>
<td></td>
<td>56.5</td>
<td>High gloss, suitable for all types of packaging machines, for printing and lamination</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>22.2</td>
<td></td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>26.8</td>
<td></td>
<td>37.3</td>
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<tr>
<td></td>
<td>35</td>
<td>31.3</td>
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<td>31.9</td>
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<td>40</td>
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<tr>
<td></td>
<td>50</td>
<td>45.0</td>
<td></td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>CBP</td>
<td>31</td>
<td>28.4</td>
<td></td>
<td>35.2</td>
<td>Perfume box wrapper; improved resistance against alcohols</td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>37.5</td>
<td></td>
<td>26.7</td>
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### Acrylic / PVDC  
Density 0.94 g/cm³

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<tr>
<th>Type</th>
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<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
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</thead>
<tbody>
<tr>
<td>CLG</td>
<td>20</td>
<td>17.7</td>
<td></td>
<td>56.5</td>
<td>High gloss, suitable for all types of packaging machines, for printing and lamination</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>22.2</td>
<td></td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>26.8</td>
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<td>37.3</td>
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<tr>
<td></td>
<td>35</td>
<td>31.3</td>
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<td>31.9</td>
<td></td>
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<tr>
<td></td>
<td>40</td>
<td>35.9</td>
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<td>27.8</td>
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<tr>
<td></td>
<td>50</td>
<td>45.0</td>
<td></td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>CBP</td>
<td>31</td>
<td>28.4</td>
<td></td>
<td>35.2</td>
<td>Perfume box wrapper; improved resistance against alcohols</td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>37.5</td>
<td></td>
<td>26.7</td>
<td></td>
</tr>
</tbody>
</table>
## Transparent Coated

### Acrylic / LTSC
Density 0.90 g/cm³

<table>
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<tr>
<th>Type</th>
<th>Structure</th>
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<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS</td>
<td></td>
<td>25 30</td>
<td>22.4 27.0</td>
<td>44.6 37.0</td>
<td>Coating inside for high speed applications in HFFS (SIT 80 °C)</td>
</tr>
</tbody>
</table>

### PVDC / LTSC
Density 0.96 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBS</td>
<td></td>
<td>26 25.1</td>
<td>39.8</td>
<td></td>
<td>Coating inside for high speed applications in HFFS (SIT 80 °C), OTR &lt; 30 cm³/m²/d for extended shelf life</td>
</tr>
<tr>
<td>CTS</td>
<td></td>
<td>26 31 25.1 29.7</td>
<td>39.8 33.7</td>
<td></td>
<td>Coating inside for very high speed applications in HFFS (SIT 75 °C); very low OTR &lt; 15 cm³/m²/d for extended shelf life</td>
</tr>
</tbody>
</table>

### EVOH
Density 0.89 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFC</td>
<td></td>
<td>19 16.9</td>
<td>59.2</td>
<td></td>
<td>Ultra high barrier properties (typical OTR value 4 cm³/m²/d) for lamination applications only</td>
</tr>
</tbody>
</table>
Coated Films

Gloss Voided Coated

Acrylic / Acrylic
Density 0.70 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
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</thead>
<tbody>
<tr>
<td>CGQ</td>
<td></td>
<td>35</td>
<td>24.6</td>
<td>40.7</td>
<td>Suitable for all types of packaging machines, for printing, lamination and for cold-seal applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>40</td>
<td>28.1</td>
<td>35.6</td>
<td></td>
</tr>
</tbody>
</table>

Acrylic / PVDC
Density 0.75 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSQ</td>
<td></td>
<td>31</td>
<td>23.9</td>
<td>41.8</td>
<td>Suitable for packaging applications where gas barrier is required (OTR &lt; 30 cm³/m²/d)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>36</td>
<td>27.7</td>
<td>36.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
<td>37.5</td>
<td>26.7</td>
<td></td>
</tr>
</tbody>
</table>

General notes on the coated range

Acrylic:  
- Suitable for general packaging applications and overwraps  
- Has excellent brilliance and surface gloss for presentation  
- No printability deterioration with time if suitable inks used  
- Consistency of slip, sealability and low pressure sealing  
- Good barrier to aromas  

PVDC:  
- Excellent barrier to oxygen and gas  
- Suitable for modified atmosphere packaging  
- Excellent seal integrity  
- Generally good hot tack performance  

LTSC:  
- Low temperature seal initiation for high speed packaging  

EVOH:  
- Exceptional barrier to oxygen and gas  
- Ideal for applications requiring ultra high gas barrier  
- EVOH must be protected from moisture by lamination/metallisation  
- Perfect for lamination
## Transparent Metallised

**Improved barrier properties**
Density 0.91 g/cm³

<table>
<thead>
<tr>
<th>Type</th>
<th>Structure</th>
<th>Nominal thickness (µm)</th>
<th>Unit weight (g/m²)</th>
<th>Yield (m²/kg)</th>
<th>Description/Application</th>
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<tbody>
<tr>
<td>MLB</td>
<td></td>
<td>20</td>
<td>20.5</td>
<td>54.9</td>
<td>For very high speed HFFS packaging lines with ultra wide sealing range, low temperature sealing face (85°C)</td>
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<td></td>
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<td>30</td>
<td>23.5</td>
<td>36.6</td>
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## Gloss Voided Metallised

**Improved barrier properties with balanced yield and stiffness**  
Density 0.70 g/cm³

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<tr>
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<tr>
<td>QFM</td>
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<td>35</td>
<td>23.5</td>
<td>42.6</td>
<td>Ultra wide sealing range for very high speed HFFS packaging lines; barrier (OTR &lt;50 cm³/m²/d)</td>
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<td>35</td>
<td>23.5</td>
<td>42.6</td>
<td>Specially developed for cold-seal applications; barrier (OTR &lt;50 cm³/m²/d)</td>
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<tr>
<td>QCS</td>
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<td>35</td>
<td>23.5</td>
<td>42.6</td>
<td>Specially developed for cold-seal applications in laminate structures; barrier (OTR &lt;50 cm³/m²/d)</td>
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## Superior barrier properties  
Density 0.70 g/cm³

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<tbody>
<tr>
<td>QHB</td>
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<td>Ultra high barrier properties (OTR &lt;10 cm³/m²/d)</td>
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<tr>
<td>QMS</td>
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<td>35</td>
<td>23.5</td>
<td>42.6</td>
<td>Ultra high barrier properties (OTR &lt;10 cm³/m²/d) in laminate structures</td>
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</table>
## Voided Metallised

**Improved yield**
Density 0.62 g/cm³

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<th>Type</th>
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<tbody>
<tr>
<td>VHM</td>
<td></td>
<td>40</td>
<td>23.0</td>
<td>42.6</td>
<td>For special overwrap applications (cubes)</td>
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</table>
## Packaging Films & Wrap-Around Label Films

### Application Overview

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<tr>
<th>Nominal thickness (µm)</th>
<th>Flowpack (HFFS)</th>
<th>Bag (VFFS)</th>
<th>Pre-made bag</th>
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<tr>
<td><strong>Transparent films</strong></td>
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<td>GND 20, 25, 30, 35, 40, 50</td>
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<td>GEA 20, 25</td>
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<tr>
<td>HNA 20, 25, 30</td>
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<td>HND 20, 25, 30</td>
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<td>GNR 20</td>
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<td>GPR 20, 25, 30</td>
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<td><strong>Solid white films</strong></td>
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<td><strong>White voided films</strong></td>
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<td>Pouch Overwrap Lamination Coldseal film Release film Ultra thin film</td>
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## Application Overview

### Coated films

<table>
<thead>
<tr>
<th>Material</th>
<th>Nominal thickness (µm)</th>
<th>Flowpack (HFFS)</th>
<th>Bag (VFFS)</th>
<th>Pre-made bag</th>
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<tr>
<td><strong>Transparent</strong></td>
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<td>Acrylic / Acrylic</td>
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<td>Acrylic / PVDC</td>
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<td>Acrylic / LTSC</td>
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<td>PVDC / LTSC</td>
<td>CBS 26</td>
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<td>PVDC / LTSC</td>
<td>CTS 26, 31</td>
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<td>EVOH / CO-EX</td>
<td>BFC 19</td>
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<td><strong>Gloss voided</strong></td>
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<td>Acrylic / Acrylic</td>
<td>CGQ 35, 40</td>
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<td>Acrylic / PVDC</td>
<td>CSQ 31, 36, 50</td>
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### Metallised films

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<th>Material</th>
<th>Nominal thickness (µm)</th>
<th>Flowpack (HFFS)</th>
<th>Bag (VFFS)</th>
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<tr>
<td>QFM</td>
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<td>QCM / QCS</td>
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<td>QHB / QMS</td>
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<td>VHM</td>
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<td>Pouch Overwrap Lamination High speed film Holographic film Gas barrier film</td>
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### Nominal thickness (µm)

- **Flowpack** (HFFS)
- **Bag** (VFFS)
- **Pre-made bag**
- **Pouch Lamination High speed film**
- **Holographic film**
- **Gas barrier film**

- **Coated films**
  - **Transparent Acrylic / Acrylic**
    - CLG 20, 25, 30, 35, 40, 50
  - **Acrylic / Acrylic**
    - CLH 20, 40
  - **Acrylic / PVDC**
    - CLB 21, 26, 31, 41
  - **Acrylic / PVDC**
    - CBP 41
  - **Acrylic / LTSC**
    - CLS 25, 30
  - **PVDC / LTSC**
    - CBS 26
  - **PVDC / LTSC**
    - CTS 26, 31
  - **EVOH / CO-EX**
    - BFC 19
  - **Gloss voided**
    - CGQ 35, 40
  - **Acrylic / PVDC**
    - CSQ 31, 36, 50

- **Metallised films**
  - **MLB** 20, 30
  - **QFM** 35
  - **QCM / QCS** 35
  - **QHB / QMS** 35
  - **VHM** 40
Layer Description

Surface layer outside:
- Heat sealable layer 110°C
- Heat sealable layer 110°C, treated
- Release layer, glossy
- Release layer, glossy, treated
- Metallised layer
- Acrylic layer
- PVDC layer
- EVOH layer
- Holographic layer

Core layer:
- Transparent layer
- White layer
- Voided layer

Surface layer inside:
- Heat sealable layer 80°C
- Heat sealable layer 90°C
- Heat sealable layer 110°C
- Coldseal receptive layer
- Coldseal receptive layer, treated
- Release layer, glossy
- Release layer, glossy, treated
- Release layer, matt
- Matt layer
- Acrylic layer
- PVDC layer
- LTSC layer
Highest quality on a global scale

Our products meet the most stringent requirements for reliability, optimal machine running properties and quality.

Certified according to:

**DIN ISO 9001:2015**
**DIN ISO 9001:2008**
**A.I.B.**
**BRC Packaging**
**DIN EN ISO 50001**

The figures and the data provided in this brochure are consistent with the current state of our knowledge and are intended to provide general information about our products and their applications.

They do not constitute a guarantee of any specific product attributes or the suitability of products for specific applications.

Any existing commercial rights or patents must be observed.