FEATURES – REINFORCED CELLOPHANE FILM

TRANSCELLO® CelloPlus films are a composite structure of 2 thin Cellophane films with a thin polymeric web in the center. The finished films are coated with PvDC on both sides.

- Currently available in 2 versions:
  - TRANSCELLO® CelloPlus T – Transparent version
  - TRANSCELLO® CelloPlus M – Metallized version
- Excellent barrier to water vapor, gases and aromas
- Excellent dead-fold characteristics
- Resistant to oils and greases
- Heat-sealable on both sides
- Both sides of the film are receptive to inks, adhesives and tear tapes
- Excellent durability and stability
- High gloss
- Inherent anti-static properties

APPLICATIONS

TRANSCELLO® CelloPlus has been developed for a wide range of applications requiring high moisture and gas barrier. It has properties that compare favorably with classical laminations. Generally used as a single film for medium to large packs on vertical or horizontal form-fill-seal machines.

Particularly suitable for the packaging of snack foods, dried foods, nuts and coffee. It is also widely used for high quality bag making applications. Its deadfold and rigidity make it particularly suitable for block-bottom bags.

TECHNICAL PROPERTIES (TYPICAL VALUES)

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST BASIS</th>
<th>TEST CONDITIONS</th>
<th>UNITS</th>
<th>CELLOPLUS T</th>
<th>CELLOPLUS M</th>
</tr>
</thead>
<tbody>
<tr>
<td>THICKNESS</td>
<td>Transcendia test</td>
<td>-</td>
<td>mil</td>
<td>1.89</td>
<td>1.90</td>
</tr>
<tr>
<td>YIELD</td>
<td>Transcendia test</td>
<td>-</td>
<td>in²/lb</td>
<td>11300</td>
<td>10400</td>
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<tr>
<td>PERMEABILITY TO:</td>
<td>WATER VAPOR</td>
<td>ASTM E96 100°F 90% RH</td>
<td>g/100in².24 hrs</td>
<td>&lt;0.4</td>
<td>&lt;0.3</td>
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<tr>
<td></td>
<td>OXYGEN</td>
<td>ASTM F 1927 73°F 0% RH</td>
<td>cc/100in².24 hrs</td>
<td>&lt;0.07</td>
<td>&lt;0.02</td>
</tr>
<tr>
<td>TENSILE STRENGTH</td>
<td>ASTM D 882</td>
<td>-</td>
<td>kpsi</td>
<td>MD 22</td>
<td>17.7</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TD 16</td>
<td>13.5</td>
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<tr>
<td>ELONGATION AT BREAK</td>
<td>ASTM D 882</td>
<td>-</td>
<td>%</td>
<td>MD 30</td>
<td>30</td>
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<td></td>
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<td></td>
<td></td>
<td>TD 85</td>
<td>110</td>
</tr>
<tr>
<td>SEAL STRENGTH</td>
<td>Transcendia test</td>
<td>275°F; 0.5 secs; 10 psi</td>
<td>g(f)/1½in</td>
<td>400</td>
<td>350</td>
</tr>
</tbody>
</table>

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FOOD CONTACT
TRANSCELLO® CelloPlus is formulated to comply with US legislation for many room temperature food contact applications. Customers intending to use the film in a food contact application must request the Declaration of Compliance which gives full details. For information on other countries please contact your Transcendia Sales Office.

HEALTH AND SAFETY GUIDELINES
For Health and Safety information, please refer to literature reference A190.

FILM STORAGE
To maintain the high quality of these products during storage it is recommended that all TRANSCELLO® CelloPlus films should be stored in their original wrapping away from any source of local heating or direct sunlight.

Recommended conditions of storage are:
Temperature: 60-75°F
Relative Humidity: 35-55%

TRANSCELLO® CelloPlus films should be converted within 6 months from the date of manufacture and stocks should be used in rotation according to date of delivery. Films should be allowed to reach operating room temperatures for 24 hours before use.