

# Invercote GP + PET Coatings



## Product description

Paperboard with polyethylene terephthalate (PET) coating is suitable for packaging applications where the temperature resistance and fat barrier are important. It is amorphous at delivery and sealable.

At temperatures around 70°C it is transformed successively to a partly crystalline state with a melting point of approximately 260°C. This means that the heat sealing properties of the package will deteriorate when heated. It can be used for food products that are cooked in the pack and/or reheated in a microwave or conventional oven.

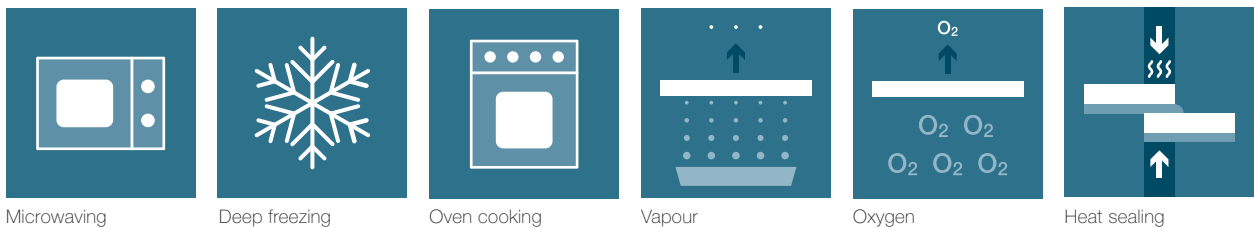
It is suitable for cooking/reheating in the tray and for lids. A black pigmented version is also available.

## Additional properties

The PET coated paperboard can be used for applications up to 220°C, depending on the degree of fill and gives:

- Extremely good temperature resistance
- Good sealability
- Excellent oxygen barrier from the inside
- Extremely good fat barrier from the inside

The reverse side always has a glossy finish for improved surface characteristics.



## Typical end use areas

### One-side PET

- Microwave and conventional oven trays for cooking/reheating of food
- Lids for trays made of PET coated board
- Baking trays for conventional/microwave ovens
- Confectionery

| Property                           | Printing side | Reverse side    | Tolerance        | Test method            |
|------------------------------------|---------------|-----------------|------------------|------------------------|
| Grammage (g/m <sup>2</sup> )       | -             | 40              | ±5 %             | ISO 536                |
| Added thickness (µm)               | -             | 29              | -                | Calculated value       |
| Surface smoothness (µm)            | -             | ≤ 2.7 (typical) | -                | ISO 8791               |
| Surface tension (dynes/cm)         | -             | -               | -                | ISO 8296               |
| Adhesion (scale)                   | 3 (typical)   | 6 (typical)     | ≥2 (PS), =5 (RS) | Internal <sup>1)</sup> |
| Pin holes (number/m <sup>2</sup> ) | -             | 0 (typical)     | ≥4               | PTN 8-70 (modified)    |

<sup>1)</sup> Scale 1-6. (6 = the best possible adhesion on the concerned surface)

# Invercote GP + PET Coatings

## Typical Baseboard PET Coating Combinations

PET coatings are available in the following combinations of baseboard and grammages (g/m<sup>2</sup>):

|                                 |   |   |
|---------------------------------|---|---|
| Printing side:                  | 40 g/m <sup>2</sup> PET coating,<br>glossy, no corona <sup>1)</sup> | No coating  |
| Invercote GP in chosen grammage |   |   |
| Reverse side:                   | No coating  | 40 g/m <sup>2</sup> PET coating,<br>glossy, no corona <sup>1)</sup> |

<sup>1)</sup> Corona treated if 1-side (reverse side) coated only.  
Other PET grammages, baseboards and pigments available on request.

## Baseboard properties

| Properties                     |               |            |              |            |                               |
|--------------------------------|---------------|------------|--------------|------------|-------------------------------|
|                                | Printing side |            | Reverse side |            | Methods/Remarks <sup>1)</sup> |
|                                |               | Tolerances |              | Tolerances |                               |
| Grammage (g/m <sup>2</sup> )   | 210-350       |            | 210-350      | ± 5%       | ISO 536                       |
| Colour                         |               |            |              |            |                               |
| L* (%)                         | 96.7          | -          | 96.4         | -          | ISO 5631-2                    |
| a*                             | 2.5           | -          | 1.9          | -          | ISO 5631-2                    |
| b*                             | -7.3          | ±1.1       | -4.3         | -          | ISO 5631-2                    |
| Whiteness (%)                  | 124           | -          | 110          | -          | ISO 11475                     |
| ISO Brightness (%)             | 94            | -          | 90           | -          | ISO 2470                      |
| Surface roughness (µm)         | 1.5           | ≤ 2.0      | -            | -          | ISO 8791-4                    |
| Board gloss 75° (%)            | 30            | +20/-10    | -            | -          | ISO 8254-1                    |
| Surface pH                     | 8.5           | +1/-1.5    | -            | -          | <sup>1)</sup>                 |
| Cobb (g/m <sup>2</sup> 60 s)   | 30            | ≤ 40       | 30           | ≤ 40       | ISO 535                       |
| Ply Bond (J/m <sup>2</sup> )   | 160           |            | ≥ 110        |            | TAPPI 569                     |
| Wick test (kg/m <sup>2</sup> ) | 1.5           |            | ≥ 2.5        |            | <sup>1)</sup>                 |

| Grammage dependent properties  |      |      |      |      |      |      |      | Tolerances | Methods/Remarks <sup>1)</sup> |
|--------------------------------|------|------|------|------|------|------|------|------------|-------------------------------|
| Grammage (g/m <sup>2</sup> )   | 210  | 230  | 250  | 270  | 300  | 330  | 350  | ± 5%       | ISO 536                       |
| Thickness (µm)                 | 275  | 305  | 330  | 360  | 400  | 440  | 470  | ± 5%       | ISO 534                       |
| Thickness including PET (µm)   | 304  | 334  | 359  | 389  | 429  | 469  | 499  |            |                               |
| Bending moment Taber 15° (mNm) |      |      |      |      |      |      |      |            |                               |
| MD                             | 6.0  | 9.1  | 11.6 | 14.7 | 20.0 | 26.6 | 31.7 | -15%       | ISO 2493                      |
| CD                             | 3.0  | 4.0  | 5.1  | 6.4  | 8.7  | 11.1 | 13.2 | -15%       | ISO 2493                      |
| Tensile strength (kN/m)        |      |      |      |      |      |      |      |            |                               |
| MD                             | 17.0 | 18.0 | 19.0 | 20.0 | 22.0 | 26.5 | 28.0 | -          | ISO 1924-2                    |
| CD                             | 9.0  | 9.5  | 10.0 | 10.5 | 11.5 | 12.0 | 12.5 | -          | ISO 1924-2                    |
| Tearing resistance (mN)        |      |      |      |      |      |      |      |            |                               |
| MD                             | 2700 | 3100 | 3400 | 3700 | 4300 | 4700 | 4900 | -          | ISO 1974                      |
| CD                             | 2900 | 3300 | 3600 | 4100 | 4500 | 5100 | 5300 | -          | ISO 1974                      |

<sup>1)</sup> See section *General Technical Information*

Issued: 01.2019

All properties are measured in test climate 23°C/50% RH at Iggesund mill. Tolerances and max/min levels, when stated, are based upon 95% confidence limits within each production run.