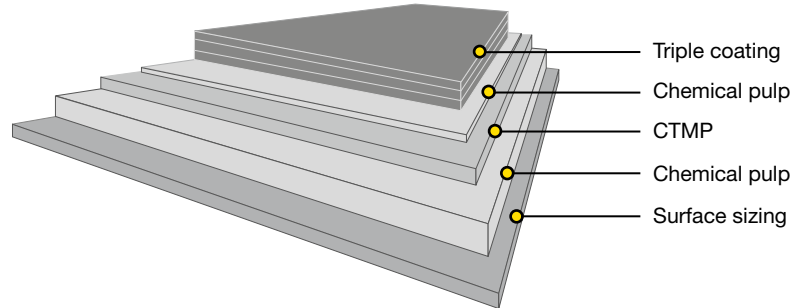


## Fully coated CTMP board with bright uncoated reverse

Performa Bright is a coated GC2 board with a three-layer fibre construction and CTMP (chemi-thermomechanical pulp) in the middle layer. It is triple-pigment-coated on the top side and has a bright uncoated reverse side.



Issued: 12.2017  
Cancels: 11.2016

### Technical specification

| Property / Unit                     | Tolerance | Standards                                     |      |      |      |      |      |      |      |      |            |
|-------------------------------------|-----------|---|------|------|------|------|------|------|------|------|------------|
| Grammage, g/m <sup>2</sup>          | ±4%       | 225   | 235  | 250  | 260  | 270  | 285  | 295  | 320  | 355  | ISO 536    |
| Thickness, µm                       | ±5%       | 350   | 380  | 415  | 430  | 450  | 485  | 505  | 560  | 625  | ISO 534    |
| Bending resistance L&W 15° MD, mN   | -15%      | 260   | 310  | 385  | 435  | 480  | 565  | 615  | 750  | 915  | ISO 2493   |
| Bending resistance L&W 15° CD, mN   | -15%      | 105   | 120  | 160  | 170  | 195  | 230  | 250  | 305  | 380  |            |
| Bending moment Taber 15° MD, mNm    | -15%      | 12.6  | 15.0 | 18.6 | 21.0 | 23.2 | 27.3 | 29.7 | 36.2 | 44.2 |            |
| Bending moment Taber 15° CD, mNm    | -15%      | 5.1   | 5.8  | 7.7  | 8.2  | 9.4  | 11.1 | 12.1 | 14.7 | 18.4 |            |
| Bending stiffness DIN 5° MD, mNm    | -15%      | 21.3  | 27.7 | 36.3 | 40.1 | 45.7 | 54.0 | 59.5 | 73.4 | 90   |            |
| Bending stiffness DIN 5° CD, mNm    | -15%      | 8.5   | 11.1 | 14.5 | 16.0 | 18.3 | 21.6 | 23.8 | 29.4 | 36.1 |            |
| Moisture, %                         | ±1        | 7.9   | 7.9  | 7.9  | 8.0  | 8.0  | 8.0  | 8.2  | 8.5  | 9.0  | ISO 287    |
| ISO Brightness C/2°, %, Top         | min. 87   | 90  | 90   | 90   | 90   | 90   | 90   | 90   | 90   | 90   | ISO 2470-1 |
| ISO Brightness C/2°, %, Reverse     |           | 82  | 82   | 82   | 82   | 82   | 82   | 82   | 82   | 82   |            |
| Brightness D65/10°, %, Top          |           | 97  | 97   | 97   | 97   | 97   | 97   | 97   | 97   | 97   | ISO 2470-2 |
| CIE Whiteness D65/10°, Top          |           | 120   | 120  | 120  | 120  | 120  | 120  | 120  | 120  | 120  | ISO 11475  |
| CIE Whiteness D65/10°, Reverse      |           | 95  | 95   | 95   | 95   | 95   | 95   | 95   | 95   | 95   |            |
| Surface Smoothness, PPS 10, µm, Top | max. 1.7  | 1.0   | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | 1.0  | ISO 8791-4 |
| Gloss 75°, %                        |           | 45  | 45   | 45   | 45   | 45   | 45   | 45   | 45   | 45   | ISO 8254-1 |
| Scott Bond, J/m <sup>2</sup>        | min. 100  | 145   | 145  | 145  | 145  | 145  | 145  | 145  | 145  | 145  | TAPPI 569  |
| Edge wicking*, g/mm.m               | max. 1.0  | 0.5   | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  |            |
| Cobb 60, g/m <sup>2</sup> , Top     | max. 60   | 30  | 30   | 30   | 30   | 30   | 30   | 30   | 30   | 30   | ISO 535    |
| Cobb 60, g/m <sup>2</sup> , Reverse |           | 50  | 50   | 50   | 50   | 50   | 50   | 50   | 50   | 50   |            |
| Robinson chocolate test             |           | max 0.5 for one year storage in reels/pallets |      |      |      |      |      |      |      |      | EN1230-2   |

\*) For hardsized

### Certificates

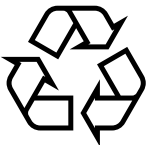
Quality management ISO 9001  
 Environmental management ISO 14001  
 Product safety FSSC 22000  
 Health and safety OHSAS 18001  
 Energy management ISO 50001  
 EU Ecolabel registration SE/011/006, the ecological criteria for Copying and Graphic Paper 2011/333/EY, L149/12, 8.6.2011



FSC and PEFC certified board available upon request.

The EU Ecolabel confirms that the board fulfils the European Commission's ecological criteria for copying and graphic paper and is therefore only available for graphical end uses.

EU Ecolabel available upon request on graphical end uses.



Paperboard is recyclable

### Key characteristics and main enduses

The odour and taint neutrality makes Performa Bright ideal for chocolate and confectionery packaging, but it also excels in cosmetics, pharmaceuticals and food packaging – preserving the delicateness of its contents. The white reverse side, combined with excellent top-side printability and yield, makes it attractive also for premium brands.

### Printing and finishing techniques

The product can be used for different printing techniques such as offset-, flexo-, rotogravure- and digital printing. Regarding digital printing the product is suitable for several different sheet- or webfed presses. Inkjet, dry- or liquid toner technology can be used, although in some cases, pretreatment of substrate might be required. The most recent status of certificates can be checked from the press manufacturer's website or from local Stora Enso representatives. It is important to check the limitations of the equipment, particularly because of the exceptional difference in thickness and stiffness of board compared with paper for the same grammages. When running thicker substrates, optimal grain direction should be checked according to the press manufacturer's recommendations.

Essentially all of the same finishing processes apply for digitally printed works as for offset printed. Since a wide variety of digital printing equipment is available in the market, it is important that a new commercial print job is always preceded by a trial run including all required printing and converting process phases.

The product works very well for different finishing techniques such as embossing, hot foil stamping and others. It is suitable for laser coding and ink jet marking. Certificates according to PTS-DF 105/2013 and PTS-DF 103/2011 are available upon request.

### Storage recommendations

For optimal printing results, the moisture proof wrapping should not be removed until the board has reached the temperature of the press room.

| Pallet/Reel Weight (kg) | Difference in temperature between board and press room (press room temp. approx. 20°C) |        |        |
|-------------------------|--|--------|--------|
|                         | 10°C   | 20°C   | 30°C   |
| 400 kg                  | 2 days   | 2 days | 3 days |
| 800 kg                  | 2 days   | 3 days | 4 days |
| 1200 kg                 | 2 days   | 4 days | 5 days |

The product properties, according to the specifications, are guaranteed for 12 months after the production date. In order to ensure product safety, the product must be well wrapped and stored in its original cover indoors, sheltered from rain and snow. The recommended storage conditions are 50-55% relative humidity and 20-23°C.

