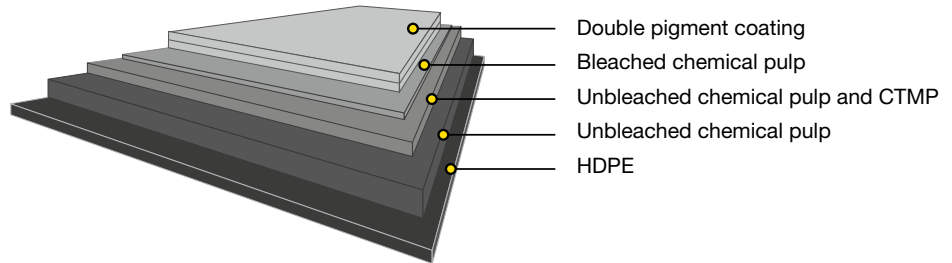


Multilayer kraft back board

CKB HDPE is a high-density, polyethylene-coated multilayer kraft back board with a bleached chemical pulp layer on the top side and other layers made of CTMP and unbleached chemical pulp. The top side is white and the reverse is side brown, coated with HDPE.



Issued: 01.2024
Cancels: 05.2020

Technical specification

| Property / Unit | Tolerance | 195+30 | 220+30 | 235+30 | 255+30 | 270+30 | 290+30 | 315+30 | 350+30 | 380+30 | 415+30 | Standard |
|-------------------------------------|-----------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Polymer coated board: | | | | | | | | | | | | |
| Grammage, g/m ² | | 225 | 250 | 265 | 285 | 300 | 320 | 345 | 380 | 410 | 445 | ISO 536 |
| HDPE reverse, g/m ² | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | Mill method |
| Thickness, μm | | 330 | 390 | 430 | 465 | 480 | 520 | 570 | 630 | 695 | 740 | ISO 534 |
| Baseboard: | | | | | | | | | | | | |
| Grammage, g/m ² | ±4% | 195 | 220 | 235 | 255 | 270 | 290 | 315 | 350 | 380 | 415 | ISO 536 |
| Thickness, μm | ±5% | 300 | 360 | 400 | 435 | 450 | 490 | 540 | 600 | 665 | 710* | ISO 534 |
| Bending moment Taber 15° MD, mNm | -15% | 7.8 | 12.0 | 15.3 | 20.2 | 24.0 | 29.5 | 37.4 | 46.9 | 56.4 | 77.0 | TAPPI 489 |
| Bending moment Taber 15° CD, mNm | -15% | 3.7 | 5.7 | 7.3 | 9.6 | 10.0 | 12.8 | 16.2 | 20.4 | 24.5 | 31.0 | |
| Bending resistance L&W 15° MD, mN | -15% | 160 | 250 | 319 | 416 | 495 | 611 | 775 | 971 | 1168 | 1585 | ISO 2493 |
| Bending resistance L&W 15° CD, mN | -15% | 76 | 119 | 152 | 198 | 210 | 266 | 336 | 422 | 508 | 635 | |
| Bending stiffness DIN 5° MD, mNm | | 14.0 | 22.0 | 28.0 | 38.0 | 43.0 | 56.0 | 71.0 | 96.0 | 109.0 | 163.0 | DIN 53121 |
| Bending stiffness DIN 5° CD, mNm | | 7.0 | 10.0 | 14.0 | 18.0 | 19.0 | 24.0 | 31.0 | 40.0 | 47.0 | 65.0 | |
| Moisture, % | ±1 | 7.0 | 7.0 | 7.5 | 7.5 | 7.5 | 8.0 | 8.5 | 9.0 | 9.5 | 9.5 | ISO 287 |
| ISO Brightness D65/10°, Top | min. 78 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | ISO 2470-2 |
| Surface Smoothness, PPS 10, μm, Top | max. 2.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | ISO 8791-4 |
| Gloss 75°, % | | 35 | 35 | 35 | 35 | 30 | 30 | 30 | 30 | 30 | 30 | ISO 8254-1 |
| Scott Bond, J/m ² | min. 100 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | 175 | TAPPI 569 |
| Edge wicking, kg/m ² | max. 1.0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | |
| Tearing resistance, GM, mN | | 2400 | 3000 | 3300 | 3700 | 4150 | 4600 | 5100 | 5700 | 6400 | 6500 | TAPPI 496 |
| Cobb 60, g/m ² , Top | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | ISO 535 |
| Robinson chocolate test | | < 1 for one year stored under normal condition | | | | | | | | | | EN1230-2 |

Produced with RaZoR concept
*) +5%/-3.5% tolerance

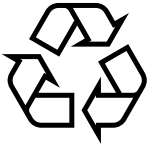
All properties according to Skoghall Mill measurements from board machine production.
Wet tearing resistance is typically 25-30% of dry tearing resistance, except for wet strength (WS) qualities, where the wet tearing resistance is 60% of dry tearing resistance.
Laboratory test climate 23°C/50% RH (According to ISO 187).
Tolerances based upon 95% confidence limits, apply to delivered reel/pallet average.
Bending moment Taber 15° and Bending resistance L&W 15° are binding, Bending stiffness DIN 5° are indicative.
Bending moment Taber 15° calculated from Bending resistance L&W 15°.

Certificates

Quality management ISO 9001
 Environmental management ISO 14001
 Product safety FSSC 22000
 Occupational health and safety ISO 45001
 Energy management ISO 50001



FSC and PEFC certified board available upon request.



Paperboard can be recycled

Key characteristics and main enduses

CKB HDPE is all about strong character, strong brands and strong messages. It is an ideal packaging material for applications that require improved protection against grease, such as pet food. The material offers exceptional stiffness and strength, combined with great runnability and good grease and moisture barrier. CKB HDPE is also food-safety proven. CKB HDPE can help optimize package performance, ensures high visual quality and saves materials. The HDPE coating is transparent.

Printing and finishing techniques

The product can be used with different printing techniques such as offset, flexo and digital printing. In digital printing, the product is suitable for several different sheet- or web-fed presses. Inkjet, dry or liquid toner technology can be used, although in some cases, pretreatment of the substrate might be required. The latest certification status can be verified on the press manufacturer's website or with local Stora Enso representatives. It is important to check the limitations of the equipment, particularly because of the exceptional difference in the thickness and stiffness of board compared with paper in the same grammages. When running thicker substrates, the press manufacturer's recommendations should be referred to for optimal grain direction. Essentially all of the same finishing processes apply to both digitally printed and offset printed work. 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 with 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 105/2019 and PTS-DF 103/2022 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 indoors, sheltered from rain and snow. The recommended storage conditions are 50–55% relative humidity and 20–23°C.