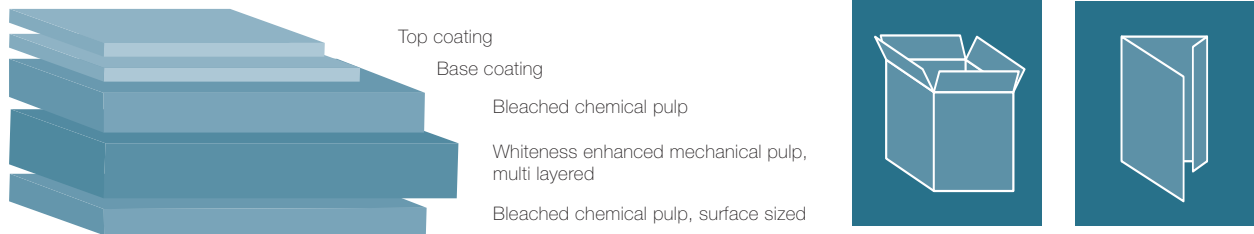


Incada Exel

Folding Box Board, GC2



Product description

Incada Exel is designed for quality packaging applications where outstanding visual impact is of prime importance. Its stiffness characteristics in relation to grammage make it particularly suitable for large machine erected cartons. Incada Exel is a primary fibre paperboard comprising bleached chemical pulp outer plies, mechanical pulp middle plies and carefully chosen coating ingredients which together meet the requirements for high performance in quality printing and varnishing.

The fully coated finish on the printing side gives a very smooth surface and meets the requirements for both demanding half tone gravure and offset litho processes, where smoothness and uniform ink absorption characteristics are of prime importance. The reverse side is uncoated and can be printed for less demanding printing requirements. Incada Exel Hard Sized is available for end uses with higher water resistance demands. Incada Exel can be PE extrusion coated on both the print and reverse sides. Incada Exel works well in most digital printing presses on the market today and is suitable for digital finishing technology.

| Grammage (g/m ²) | 200 | 210 | 225 | 235 | 255 | 280 | 300 | 325 | 350 |
|---|------|------|------|------|------|------|------|------|------|
| Thickness (µm) | 310 | 340 | 375 | 400 | 450 | 490 | 540 | 590 | 640 |
| Caliper (pt) | 12.2 | 13.4 | 14.8 | 15.7 | 17.7 | 19.3 | 21.3 | 23.2 | 25.2 |
| Tolerances: Grammage ± 4% (ISO 536) Thickness ± 4%, max ± 20 µm (ISO 534) | | | | | | | | | |

The range is further extended by Incada Duo, available in grammages 410–995 g/m².

| Certifications | | | | | |
|--|---|-------------------------|--|--|----------------|
| Product related | ECF | FSC® Mix FSC-C008588 | Food contact EC 1935/2004, EC 2023/2006 ¹⁾ , American FDA, German BfR | Toy safety EN 71 Part 3 EN 71 Part 9 | |
| | All fibres from sustainable and controlled sources in compliance with the EU Timber Regulation EC 995/2010. | | | | |
| | Mill related | ISO 14001 | FSC® C. o. C. | ISO 9001 | BS OHSAS 18001 |
| EcoVadis Gold Standard | | | | | |
| ¹⁾ the GMP regulation, extended with CEPI GMP | | | | | |

More information, application examples as well as environmental declarations and other certificates can be found at www.iggesund.com.

Product properties

| Properties | | | | | |
|------------------------------|----------------------------------|------------|--------------|------------|-------------------------------|
| | Printing side | | Reverse side | | Methods/Remarks ¹⁾ |
| | | Tolerances | | Tolerances | |
| Grammage (g/m ²) | 200-350 | | 200-350 | ± 4% | ISO 536 |
| Colour | | | | | |
| L* (%) | 95.2 | ±0.8 | 95.0 | - | ISO 5631-2 |
| a* | 1.4 | ±0.6 | 0.5 | - | ISO 5631-2 |
| b* | -7.2 | ±1.0 | -2.0 | - | ISO 5631-2 |
| Whiteness (%) | 120 | ±2.5 | 97 | - | ISO 11475 |
| ISO brightness (%) | 91.5 | ±2.0 | 86 | | ISO 2470 |
| Surface roughness (µm) | 0.9 | ≤ 1.3 | - | - | ISO 8791-4 |
| Board gloss 75° (%) | 50 | -10 | - | - | ISO 8254-1 |
| Surface strength IGT (m/s) | | | | | |
| blister/pick | 1.0 | ≥ 0.85 | - | - | ISO 3783 |
| Cobb (g/m ² 60 s) | 30 | - | 30 | - | ISO 535 |
| Ply Bond (J/m ²) | 140 | | | ≥ 95 | TAPPI 569 |
| Robinson taint | Below the detection limit of 0.6 | | | - | EN 1230, DIN 10955 |

¹⁾ See section *General Technical Information*

| Grammage dependent properties | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|----------|
| Grammage (g/m ²) | 200 | 210 | 225 | 235 | 255 | 280 | 300 | 325 | 350 | ± 4% | ISO 536 |
| Thickness (µm) | 310 | 340 | 375 | 400 | 450 | 490 | 540 | 590 | 640 | ± 4% | ISO 534 |
| Moisture content (%) | 8.0 | 8.0 | 8.0 | 8.0 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | ±1.0 | ISO 287 |
| Bending stiffness L&W 5° (mNm) | | | | | | | | | | | |
| MD | 15.8 | 20.1 | 26.3 | 29.4 | 38.4 | 49.2 | 60.4 | 77.4 | 91.4 | - | ISO 5628 |
| CD | 6.0 | 7.9 | 10.6 | 11.9 | 15.8 | 20.5 | 25.4 | 32.8 | 38.9 | - | ISO 5628 |
| Bending resistance L&W 15° (mN) | | | | | | | | | | | |
| MD | 176 | 220 | 282 | 314 | 405 | 515 | 628 | 800 | 941 | -15% | ISO 2493 |
| CD | 76 | 96 | 123 | 136 | 176 | 224 | 273 | 348 | 409 | -15% | ISO 2493 |
| Bending moment Taber 15° (mNm) | | | | | | | | | | | |
| MD | 8.5 | 10.6 | 13.6 | 15.2 | 19.6 | 24.9 | 30.3 | 38.7 | 45.5 | -15% | ISO 2493 |
| CD | 3.7 | 4.6 | 5.9 | 6.6 | 8.5 | 10.8 | 13.2 | 16.8 | 19.8 | -15% | ISO 2493 |
| Hard Sized Cobb (g/m ² 180 s) | | | | | | | | | | | |
| printing side | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | ≤ 50 | ISO 535 |
| middle layers | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | ≤ 50 | ISO 535 |
| reverse side | 45 | 45 | 45 | 45 | 45 | 40 | 40 | 40 | 40 | ≤ 50 | ISO 535 |

¹⁾ See section *General Technical Information*

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