

FORMAKOTE™ SPECTRA

SPECIFICATION SHEET NOVEMBER 2024

COATED ONE SIDE KRAFT-BACKED FOLDING BOXBOARD

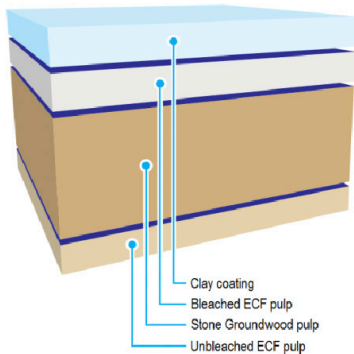
Formakote™ Spectra is a strong, cost-effective, and fully recyclable folding boxboard suitable for a wide range of applications across the FMCG, industrial and food service markets. It is a great choice for brand owners and marketers looking for a cost-effective boxboard that provides excellent product protection while delivering high-quality printability.

Application Ideas:

- FMCG - SRS (shelf ready shippers), multipacks, freezer and chiller sleeves and cartons
- Industrial - tools, parts, stationery
- Fresh Produce - fruit punnets, cartons and clamshells

Our products are tested for food safety against conditions of use that should not be assumed to include the above-listed applications. To ensure we are providing the correct product with the correct product safety, we must know the intended final use.

Please contact us with this information before using our product for any application.



Structure:

- 3-ply board structure for yield and stiffness
- Double coated top side
- Uncoated kraft reverse side

Printability:

- Suitable for sheet fed, offset, digital and flexo printing
- Complex graphics

Ordering:

- Minimum order size may apply
- Deckle surcharge may apply
- Available as hard sized
- Call your customer service representative for assistance

Product Safety:

- GMP as per EC 2023/2006
- Uses only virgin pulp fibres
- Free of optical brightening agents
- Materials used are approved for food contact according to:
 - EC 1935/2004
 - US FDA CFR Title Part 176.170 and 176.180
 - German BfR Recommendation XXXVI
 - China GB 4806.1 and 4806.8

Specific compliance details are available in our product safety statements and must be carefully read.



**EXCELLENCE
IN BOARD,
EVERY DAY**

For further specification and samples email customerservice@wml.biz or phone WML sales on +64 7 306 3840

FORMAKOTE™ SPECTRA SPECIFICATION

| THICKNESS | | GRAMMAGE | BENDING RESISTANCE L & W (15°) | | BENDING MOMENT TABER (15°) | | MOISTURE |
|-----------|------------------|----------|--------------------------------|----------|----------------------------|----------|----------|
| METRIC | | | | | | | |
| µm | g/m ² | MD mN | CD mN | MD mNm | CD mNm | % | |
| 280 | 183 | 119 | 52 | 5.7 | 2.5 | 6.5-10.5 | |
| 305 | 203 | 160 | 65 | 7.5 | 3.2 | 6.5-10.5 | |
| 350 | 233 | 248 | 104 | 12.0 | 5.0 | 6.5-10.5 | |
| 400 | 255 | 347 | 144 | 16.8 | 7.0 | 6.5-10.5 | |
| 450 | 274 | 446 | 186 | 21.5 | 9.0 | 6.5-10.5 | |
| 500 | 301 | 604 | 252 | 29.2 | 12.2 | 6.5-10.5 | |
| 550 | 324 | 762 | 317 | 36.8 | 15.3 | 6.5-10.5 | |
| 600 | 350 | 970 | 405 | 46.9 | 19.6 | 6.5-10.5 | |
| 630 | 365 | 1097 | 457 | 53.0 | 22.1 | 6.5-10.5 | |
| 675 | 390 | 1230 | 513 | 59.4 | 24.8 | 6.5-10.5 | |
| 700 | 403 | 1286 | 536 | 62.1 | 25.9 | 6.5-10.5 | |
| IMPERIAL | | | | | | | |
| PT | lbs/MSF | MD gf | CD gf | MD gf-cm | CD gf-cm | % | |
| 11.0 | 37 | 12 | 5 | 58 | 25 | 6.5-10.5 | |
| 12.0 | 42 | 16 | 7 | 76 | 33 | 6.5-10.5 | |
| 13.8 | 48 | 25 | 11 | 122 | 51 | 6.5-10.5 | |
| 15.7 | 52 | 35 | 15 | 171 | 71 | 6.5-10.5 | |
| 17.7 | 56 | 45 | 19 | 219 | 92 | 6.5-10.5 | |
| 19.7 | 62 | 61 | 26 | 298 | 124 | 6.5-10.5 | |
| 21.7 | 66 | 78 | 32 | 375 | 156 | 6.5-10.5 | |
| 23.6 | 72 | 99 | 41 | 478 | 200 | 6.5-10.5 | |
| 24.8 | 75 | 112 | 47 | 540 | 225 | 6.5-10.5 | |
| 26.6 | 80 | 125 | 52 | 606 | 253 | 6.5-10.5 | |
| 27.6 | 83 | 131 | 55 | 633 | 264 | 6.5-10.5 | |

| PRINTING SURFACE PROPERTIES | |
|---|---------|
| IGT Blister Velocity (medium viscosity oil) | 1.2 m/s |
| IGT Pick Velocity (medium viscosity oil) | 1.2 m/s |
| ISO Brightness | 80 % |
| PPS Roughness (10 kgf) | 1.8 µm |

| OTHER PROPERTIES | |
|--|--|
| Scott Plybond | 175 J/m ² 83.3 ft.lb/1000 in ² |
| Cobb (60 s) - Back Liner | 35 g/m ² |
| Cobb (180 s) - Back and Top Liner (Hard Sized) | 50 g/m ² |

| TOLERANCES | |
|---------------------------|----------------------------|
| Thickness | ±25 µm ±0.001 inch |
| Grammage | ±5 % |
| Bending Resistance | -20 % |
| Bending Moment | Typical conditioned values |
| ISO Brightness | ±2 brightness units |
| PPS Roughness (10 kgf) | Max 2.5 µm |
| Scott Plybond | -20 % |
| Cobb (60 s) | +40 g/m ² |
| Cobb (180 s) (Hard-sized) | +40 g/m ² |
| IGT Pick/Blister | ≥0.6 m/s |

Whakatane Mill Ltd certified systems:

- Food Safety System Certification (FSSC) 22000
- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- FSC Chain-of-Custody;
FSC Licence Code FSC® C010438

Notes:

These property mean values and limits are the manufacturing standards applied by Whakatane Mill and relate to machine roll tests carried out according to Appita (NZS/AS 1301).

All paperboard exhibits loss in stiffness and plybond caused by routine physical actions in converting (i.e. decurling, wrapping cylinders or passing through nips during printing etc.).



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The above information is given for general guidance only and is subject to change without notice.