



**TECHNICAL STANDARD VALUES**

IMPORTANT: Please check which is the standard grammage on the MANUFACTURING SPECIFICATION chart

| Grammage<br>g / m <sup>2</sup> | Caliper<br>µm | Bulk<br>cm <sup>3</sup> / g | Bending stiffness by static methods |      |         |     |             |    |        |     |
|--------------------------------|---------------|-----------------------------|-------------------------------------|------|---------|-----|-------------|----|--------|-----|
|                                |               |                             | 5° (L&W)                            |      |         |     | 15° (Taber) |    |        |     |
|                                |               |                             | mNm                                 |      | mNm (*) |     | gcm (*)     |    | mN (*) |     |
|                                |               |                             | MD                                  | CD   | MD      | CD  | MD          | CD | MD     | CD  |
| 280                            | 380           | 1.36                        | 19.0                                | 9.5  | 10.0    | 5.0 | 102         | 51 | 201    | 100 |
| 300                            | 410           | 1.36                        | 23.4                                | 11.7 | 12.4    | 6.2 | 126         | 63 | 248    | 124 |
| 320                            | 435           | 1.36                        | 28.2                                | 14.1 | 14.7    | 7.4 | 150         | 75 | 294    | 147 |
| 350                            | 485           | 1.38                        | 36.6                                | 18.3 | 18.7    | 9.3 | 190         | 95 | 373    | 187 |

(\*) calculated figures

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Test climate (DIN 50 014) : 23°C / 50% rH

| Properties        |                    | Testing methods | Tolerances                    |
|-------------------|--------------------|-----------------|-------------------------------|
| Grammage          | g / m <sup>2</sup> | DIN-EN-ISO 536  | 2 %                           |
| Caliper           | µm                 | DIN-EN-ISO 534  | 5 %                           |
| Bending stiffness | mNm                | DIN 53 121      | 5°(Lorentzen & Wettre) - 15 % |
|                   | mNm                | ISO 2493        | 15°(Taber) - 15 %             |

Tolerances as agreed by the FFI (the association of the German carton makers) dated September 2000

**OTHER CHARACTERISTICS**

|             |      |                    |                |         |
|-------------|------|--------------------|----------------|---------|
| Brightness  | Top  | %                  | ISO 2470       | 84 ± 1  |
| Cobb 180 s  | Top  | g / m <sup>2</sup> | DIN-EN-ISO 535 | 50 ± 10 |
| Cobb 180 s  | Back | g / m <sup>2</sup> | DIN-EN-ISO 535 | 50 ± 10 |
| Wick - Test |      | g / m x mm         |                | < 2.5   |
| Gloss 60°   | Top  | %                  | ( Dr. Lange )  | > 14    |

Tolerances in 2 sigma area

Reference 11 - AR/RAR

Revision 16 – 01/2009

