

# KARTONSAN PRODUCT SPECIFICATIONS

## GT1: LUXTRIPLEX CARDBOARD

Luxtriplex is the premium grade with high smoothness and stiffness, consisting of recycled fiber amount around 100%. Both sides are coated where back side is also white. Luxtriplex grade has excellent printing, box manufacture as well as filling runnability.

Grammage	Caliper	Taber ° 15		
		MD stiffness	CD stiffness	Avg stiffness**
225	245	5.1	2.8	3.8
250	285	7.0	3.9	5.2
280	330	9.6	5.1	7.0
300	360	11.5	6.5	8.7
350	425	17.8	9.3	12.9
400	495	24.7	13.2	18.1
450	575	35.8	18.0	25.4

## GD2: EXPRINT CARDBOARD

Exprint is the premium grade with high smoothness and stiffness, consisting of recycled fiber amount around 96-98%. Both sides are coated where back side is grey. Exprint grade has excellent printing, box manufacture as well as filling runnability.

Grammage	Caliper	Taber 15		
		MD stiffness	CD stiffness	Avg stiffness**
225	265	5.1	2.9	3.9
250	305	7.2	4.0	5.4
280	350	10.2	5.3	7.4
300	380	12.0	6.6	8.9
350	450	18.7	10.2	13.8
400	540	27.1	13.5	19.1
450	615	38.4	18.4	26.6

## GD3: NORMPRINT CARDBOARD

Normprint cardboard has coating at the top layer. Back side is grey. It's produced from 100% recycled paper. Normprint grade has excellent printing, box manufacture as well as filling runnability.

Grammage	Caliper	Taber 15		
		MD stiffness	CD stiffness	Avg stiffness**
280	350	11.00	4.50	7.04
300	375	13.70	5.40	8.60
320	405	16.00	6.30	10.04
350	450	21.00	7.60	12.63
375	485	24.00	9.20	14.86
400	530	29.20	10.90	17.84
450	600	38.60	15.50	24.46
500	650	44.95	17.48	28.03

## NORMPRINT - LINER CARDBOARD

Normprint Liner cardboard has coating at the top layer. Back side is grey. It's produced from 100% recycled paper. Normprint Liner grade has excellent lamination, printing, box manufacture as well as filling runnability.

Grammage	Caliper	SCT (cd)	Burst	MD stiffness	CD stiffness	Avg stiffness**
200	235	3.3	380	4.00	2.10	2.90
225	265	3.6	420	5.00	2.80	3.74

	Luxtriplex	Exprint	Normprint	Normprint - Liner
Brightness	82	82	78	80
Brightness – Back Side	69	-	-	-
PPS	2.0	2.0	2.5	2

Parameter	Grammage	Caliper	Stiffness	Brightness (Elrepho)	PPS	Burst	SCT - cd
Unit	Gr/m <sup>2</sup>	µm	mNm	%	µm	kPa	kNm
Tolerance	± %3	± %5	-%15	-%1 -%2 (Alt Kat)	+0.5	-%10	-0.3
Testing Method	ISO 536	ISO 534	ISO 2493	ISO 2470	ISO 8791-4	ISO 2759	ISO 9895

\* Conditioning T 23 ± 1 °C ve RH: 50 ± %3

\*\*Geometric average stiffness calculated by  $\sqrt{Bstiffness * E Stiffness}$  – considered for the evaluation of single sample.