

	Universal Packaging Company (Pvt) Ltd		Effective Date
	Certificate Of Analysis		12.12.2022
	REC-QA-34-22		Rev:0
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Customer Name:	UNILEVER	Job Name:	WRPR SSK SHP BLACKSHNE 4ml
Job card #:	23050128	Structure:	PET (12μ) + MPET (12μ) + LDPE (40μ)
Dispatched Date:	25-May-23	Production Date:	19-May-23
Best Before:	6 Months	Sampling Plan:	SOP-QA-11-19
Dispatch Quantity:	4315.2	Vechile Number:	JU-8192

S.NO	Parameters	Target	Min	Max	Test method	Unit	Results
1	Grammage	75.46	69.59	81.33	ISO 536	g/m <sup>2</sup>	77.1
2	Reel Width	1056	1055	1057	Internal	mm	1056
3	Coef of Fr. Dynamic face\face	0.25	0.2	0.3	ASTM D1894	Number	0.27
4	Coef of Fr. Dynamic Reverse\Reverse	0.3	0.2	0.5	ASTM D1894	Number	0.26
5	Coef of Fr. Static face\face	0.25	0.2	0.3	ASTM D1894	Number	0.30
6	Coef of Fr. Static Reverse\Metal	0.25	0.15	0.3	ASTM D1894	Number	0.26
7	Lamination Strength Interface 1	0.3	0.15	0.45	F 904-98	N/15mm	4.52
8	Lamination Strength Interface 2	1.25	1.1	1.4	F 904-98	N/15mm	9.11
9	Repeat Length	65	64	66	Internal	mm	65
10	Seal Strength	30	25	35	ASTM F88	N/15mm	32.9
11	Tensile Strength @ Break (CD)	60	57	-	ASTM D882	N/mm <sup>2</sup>	102
12	Tensile Strength @ Break (MD)	48	44	-	ASTM D882	N/mm <sup>2</sup>	120
13	Thickness	68.9	63.21	74.59	DIN 53370	μ	69
14	Moisture Permeability	0.61	0.41	0.81	Undefined	g/m <sup>2</sup> /day	0.489
15	Oxygen Permeability	1.5	1	2	Undefined	ml/m <sup>2</sup> *day*bar	0.915

**Remarks:** Storage condition, Temperature should be below 30°C & 50% humidity.

**Note:** System generated document signature donot required.

Universal Packaging Company(pvt) Ltd. Plot No : GA-65-66-A4-A5, Korangi Creek National Industrial park, Korangi Town Karachi,Pakistan