

Comparison of Test Results of various spunlace Nonwoven Fabric tested at SAMIRA & Inhouse Lab

Test Parameters	Proposed BIS Std.	Proposed Ginni Std.	PV5050E1060		PV5050A2056		PV7030P1040		PV3070P1045		PV5050P1040		PO1000P1062		VO1000P1060		PV8020P1040	
			Inhouse	Sasmira	Inhouse	Sasmira	Inhouse	Sasmira	Inhouse	Sasmira	Inhouse	Sasmira	Inhouse	Sasmira	Inhouse	Sasmira	Inhouse	Sasmira
Nominal GSM	30-70	30-70	60		56		40		45		50		62		60		40	
Breaking Strength/Tensile Strength	IS 15891 (Part 18)	IS 15891 (Part3)																
Dry MD	Min.30 N	Min. 30 N Recommended test method IS 15891 (Part 3)	89.89	85.3	87.83	87.2	83.24	68.6	75.13	73.5	69.58	54.9	191.05	176.7	96.17	86.2	83.0	82.4
Dry CD	Min.10 N	Min. 10 N Recommended test method IS 15891 (Part 3)	22.14	22.3	24.24	23.7	19.53	17.7	18.23	17.6	15.52	13.7	49.02	48	27.60	28.4	21.5	19.6
Sinking time, in sec	5 Sec (Max)	Max. 15 Sec	1.14	3.04	1.68	2.86	3.42	2.85	1.78	2.2	1.72	2			1.15	2.2	3.78	7.61
Water Holding Capacity, %	Min. 300	Min. 300	1267	987.4	1396	897.9	1206	1136.8	1197	905.8	1322	1112.4			1258	979.3	1232	1149.7

Table 2

Nonwoven Fabric Analysis Report from BTRA, SITRA & Inhouse Lab

Sr. No	Test Parameter	Product →	BIS Test Method Reference	Nonwoven Fabric			Remarks
		Fabric Used →		PVT402040P1045			Ginni's recomedations on specification of BIS
		BIS Standard		In-house Results	BTRA Results	SITRA Results	
i)	Fibre identification	At least 20 percent of cotton or/ and viscose fibre	IS667	Polyester: 80% Viscose: 20%	Polyester: 81.4% Viscose: 18.6%	-	Agreed blend % ±5%
ii)	Weight per square metre, g/m ²	30-70	IS 15891 (Part 1)	44.67	43.7	44.54	30-70
iii)	Absorption						
a)	Sinking time,s, Max	5	IS 15891 (Part 6)	1.91	-	6.75	Max. 15 Sec
b)	Water holding capacity, percent, Min	300	IS 15891 (Part 6)	1483	979	929	Min. 300
iv)	Breaking Strength(dry),N,Min						
a)	Machine direction	30	IS 15891 (Part 18)	93.77 Note: Testing done as per IS 15891 (Part 3)	82.4	71.75	Min.30 N Recommended test method IS 15891 (Part 3)
b)	Cross direction	10	IS 15891 (Part 18)	24.46 Note: Testing done as per IS 15891 (Part 3)	32.9	30.57	Min.10 N Recommended test method IS 15891 (Part 3)
v)	Breaking Strength(wet),N,Min						
a)	Machine direction	10	IS 15891 (Part 18)	91.96 Note: Testing done as per IS 15891 (Part 3)	71.8	70.2	Min.10 N Recommended test method IS 15891 (Part 3)
b)	Cross direction	3	IS 15891 (Part 18)	22.78 Note: Testing done as per IS 15891 (Part 3)	29.5	30.5	Min.3 N Recommended test method IS 15891 (Part 3)
vi)	pH	5.5-8.0	IS 1390	6.8	6.8	6.5	4.5-8.0

Table 3

Comparison of test results of various wipes tested at SITRA & Inhouse Lab

Test Parameter	Product →	BIS Test Method Reference	Ginni's Recommendation	Babyhug premium Wipes - Classic 80's		Johnson's Baby skin care Wipes		Chicco Wet Wipes 72's		1st Step baby wipes 72's		Chicco Water Wipes 99% 72's		Littles baby soft cleansing baby wipes 72's	
				B. No. : BPF2301	Mdf. : 02/2023	B. No. : BPA4066	Mdf. :07/2024	B. No. : B01004 B	Mdf. : 01/2024	B. No. : BPSO2410	Mdf. : 07/2024	B. No. : B1004 B	Mdf. : 06/2024	B. No. : LWPD006	Mdf. : 09/2023
	Fabric Used →			BIS Standard	In-house Results	SITRA Results	In-house Results	SITRA Results	In-house Results	SITRA Results	In-house Results	SITRA Results	In-house Results	SITRA Results	In-house Results
pH	4.5 – 7.5	IS 1390	4.5 – 8.0	5.66	Mean pH value : 5.61 pH of Extracting solution : 5.64 Temp. of Extracting soln : 29°C	4.65	Mean pH value : 4.79 pH of Extracting solution : 5.64 Temp. of Extracting soln : 29°C	5.28	Mean pH value : 5.57 pH of Extracting solution : 5.64 Temp. of Extracting soln : 29°C	5.26	Mean pH value : 5.31 pH of Extracting solution : 5.64 Temp. of Extracting soln : 29°C	4.65	Mean pH value : 4.59 pH of Extracting solution : 5.64 Temp. of Extracting soln : 29°C	5.77	Mean pH value :5.44 pH of Extracting solution : 5.64 Temp. of Extracting soln : 29°C
Length of Wipe	As agreed to between the buyer and the seller with a tolerance of ± 1 mm	--	Tolerance : Min. 5mm	Avg. : 198 mm Min. : 197 mm Max. : 199 mm	Avg. : 198.2 mm Min. : 194 mm Max. : 203 mm	Avg. : 198 mm Min. : 197 mm Max. : 199 mm	Avg. : 205.3 mm Min. : 202 mm Max. : 207 mm	Avg. : 198 mm Min. : 197 mm Max. : 199 mm	Avg. : 205.5 mm Min. : 200 mm Max. : 212 mm	Avg. : 198.6 mm Min. : 197 mm Max. : 200 mm	Avg. : 206.6 mm Min. : 200 mm Max. : 213 mm	Avg. : 198.8 mm Min. : 198 mm Max. : 200 mm	Avg. : 205.5 mm Min. : 200 mm Max. : 216 mm	Avg. : 199 mm Min. : 198 mm Max. : 200 mm	203.3 mm
Width of Wipe	As agreed to between the buyer and the seller with a tolerance of ± 1 mm	--	Tolerance : Min. 5mm	Avg. : 148 mm Min. : 147 mm Max. : 149 mm	Avg. : 149.6 mm Min. : 148 mm Max. : 151 mm	Avg. : 138.2 mm Min. : 137 mm Max. : 139 mm	Avg. : 138.5 mm Min. : 137 mm Max. : 139 mm	Avg. : 148.8 mm Min. : 148 mm Max. : 150 mm	Avg. : 146.1 mm Min. : 145 mm Max. : 147 mm	Avg. : 148.8 mm Min. : 148 mm Max. : 150 mm	Avg. : 146.1 mm Min. : 144 mm Max. : 147 mm	Avg. : 148.8 mm Min. : 148 mm Max. : 150 mm	Avg. : 149.6 mm Min. : 148 mm Max. : 151 mm	Avg. : 149.2 mm Min. : 148 mm Max. : 150 mm	148.2 mm