Difference in the pH values of sanitary napkin when tested in KCl and Dis.water

S.No	Company Name	KCl	Water
1.	Product 1	3.84	4.81
2.	Product 2	3.96	4.66
3.	Product 3	3.76	5.03
4.	Product 4	6.3	6.94
5.	Product 5	4.06	4.9
6.	Product 6	5.71	7.4
7.	Product 7	4.07	4.98
8.	Product 8	5.42	7.49
9.	Product 9	5.03	6.43
10.	Product 10	5.94	7.77
11.	Product 11	5.03	6.39
12.	Product 12	6.17	7.69
13.	Product 13	4.07	5.18
14.	Product 14	5.01	6.26
15.	Product 15	6.3	7.51
16.	Product 16	4.49	6.11
17.	Product 17	5.18	5.59
18.	Product 18	4.42	5.88
19.	Average pH	**4.9**	**6.2**

Suggestion

From the analysis it is found that the pH of the sanitary pads varies by 1.3 when tested in KCl and water. From this analysis and also as per the literature, it is identified that the ionic strength of the KCl is high when compared to water. Which means, it can dissociate more no. of hydrogen ions from the material, hence reduces pH when compared to water. Therefore the pH may be changed in line with the test medium i.e KCl. This is our kind observation for your reference.

Difference in the values of pH when tested absorbent core and whole sanitary pad

Napkin 1			
Description	**IS 1390 - 2022 0.1M KCl Method - absorbent core (08-12-23)**	**IS 1390 - 2022 0.1M KCl Method - Full pad (30-12-23)**	**DIFFERENCE**
pH of test solution used	5.6	5.51	0.09
Blank	4.07	4.11	0.04
Test 1	4.06	4.04	0.02
Test 2	4.05	4.11	0.06
pH Avg Value	**4.06**	**4.08**	**0.02**
Temperature °C	**27.3**	**27.1**	

Napkin 2			
Description	**IS 1390 - 2022 0.1M KCl Method - absorbent core (08-12-23)**	**IS 1390 - 2022 0.1M KCl Method - Full pad (30-12-23)**	**DIFFERENCE**
pH of test solution used	5.6	5.51	0.09
Blank	4.08	4.23	0.15
Test 1	4.07	4.21	0.14
Test 2	4.07	4.22	0.15
pH Avg Value	**4.07**	**4.22**	**0.15**
Temperature °C	**27.3**	**27.1**	

Napkin -3			
Description	**IS 1390 - 2022 0.1M KCl Method - absorbent core (08-12-23)**	**IS 1390 - 2022 0.1M KCl Method - Full pad (30-12-23)**	**DIFFERENCE**
pH of test solution used	5.72	5.51	0.21
Blank	4.98	4.94	0.04
Test 1	5.03	4.97	0.06
Test 2	5.03	4.99	0.04
pH Avg Value	**5.03**	**4.98**	**0.05**
Temperature °C	**27.1**	**27.1**	

Napkin -4			
Description	**IS 1390 - 2022 0.1M KCl Method - absorbent core (08-12-23)**	**IS 1390 - 2022 0.1M KCl Method - Full pad (30-12-23)**	**DIFFERENCE**
pH of test solution used	5.72	5.51	0.21
Blank	5.78	5.96	0.18
Test 1	5.87	6.07	0.2

Test 2	6.01	6.08	0.07
pH Avg Value	**5.94**	**6.075**	**0.14**
Temperature °C	**27.1**	**27.1**	

Comment:

From the test result, it is learnt that there is no significant difference in the value of pH when testing absorbent core alone and full pad with KCl.