

TEST REPORT

Test Report No.
Dated



Description of The Test Subject

Sample	Description	Photo
A	100% polyamide Woven Fabric in #9103	
B	88% Polyester 12% spandex Woven Fabric in #9045	

Conclusion

Test Items	Test Component	Conclusion
1. Per- and polyfluoroalkyl substances (PFAS) Target Content Test	A,B	Pass

Remarks: Pass = Meet Client's Requirement
* = No Specified Requirement
N/A = Not Applicable

Fail = Below Client's Requirement
= No Comments
- = Not Conducted



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TEST RESULTS

1. Per- and polyfluoroalkyl substances (PFAS) Target Content Test

With reference to EN 17681-1:2025, determined by LC-MS/MS

No.	Substances List	CAS No.	Result [ppb]	MDL [ppb]	Limit [ppb]
			A		
1	Perfluoro-n-octane sulfonic acid (PFOS)	1763-23-1	ND	10	--
2	Potassium perfluoro-n-octane sulfonate (PFOS-K) ^{Ab}	2795-39-3	N/A	--	--
3	Lithium perfluoro-n-octane sulfonate (PFOS-Li) ^{Ab}	29457-72-5	N/A	--	--
4	Ammonium perfluoro-n-octanesulfonate (PFOS-NH ₄) ^{Ab}	29081-56-9	N/A	--	--
5	Bis(2-hydroxyethyl)ammoniumperfluoro-n-octane sulfonate (PFOS-NH ₂ (C ₂ H ₄ OH) ₂) ^{Ab}	70225-14-8	N/A	--	--
6	Tetraethyl ammonium perfluoro-n-octane sulfonate (PFOS-N(C ₂ H ₅) ₄) ^{Ab}	56773-42-3	N/A	--	--
7	Didecyl(dimethyl) azaniumperfluoro-n-octane sulfonate (PFOS- N(C ₁₀ H ₂₁) ₂ (CH ₃) ₂) ^{Ab}	251099-16-8	N/A	--	--
	Sum of PFOS and its salts	--	ND	--	25
8	Perfluoro-1-octanesulfonamide (FOSA)	754-91-6	ND	10	--
9	N-Methylperfluoro-1-octanesulfonamide (N-MeFOSA)	31506-32-8	ND	10	--
10	N-Ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2	ND	10	--
11	2-(N-Methylperfluoro-1-octanesulfonamido)-ethanol(N-MeFOSE)	24448-09-7	ND	10	--
12	2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol(N-EtFOSE)	1691-99-2	ND	10	--
13	Perfluoro-1-octanesulfonyl fluoride(PFOSF) ^{Ah}	307-35-7	N/A	--	--
	Sum of PFOS related substances	--	ND	--	1000
14	Perfluoro-n-octanoic acid (PFOA)	335-67-1	ND	10	--
15	Ammonium perfluoro-n-octanoate (APFO) ^{Ab}	3825-26-1	N/A	--	--
16	Sodium perfluoro-n-octanoate (Na-PFO) ^{Ab}	335-95-5	N/A	--	--
17	Potassium perfluoro-n-octanoate (K-PFO) ^{Ab}	2395-00-8	N/A	--	--
18	Silver perfluoro-n-octanoate (Ag-PFO) ^{Ab}	335-93-3	N/A	--	--
19	Perfluoro-n-octanoyl fluoride (F-PFO) ^{Ab}	335-66-0	N/A	--	--
	Sum of PFOA and salts	--	ND	--	25
20	Methyl perfluoro-n-octanoate(Me-PFOA) ^{Ae}	376-27-2	N/A	--	--
21	Ethyl perfluoro-n-octanoate (Et-PFOA) ^{Ae}	3108-24-5	N/A	--	--
22	8:2 Fluorotelomer alcohol (8:2 FTOH) ^{Ac}	678-39-7	ND	100	--
23	8:2 Fluorotelomer acrylate(8:2 FTA) ^{Af}	27905-45-9	N/A	--	--
24	8:2 Fluorotelomer methacrylate(8:2 FTMA) ^{Af}	1996-88-9	N/A	--	--
25	8:2 Fluorotelomer sulfonic acid(8:2 FTS)	39108-34-4	ND	10	--
	Sum of PFOA related substances	--	ND	--	1000
26	Perfluoro-n-nonanoic acid (PFNA)	375-95-1	ND	10	--
27	Sodium perfluoro-n-nonanoate (Na-PFN) ^{Ab}	21049-39-8	N/A	--	--
28	Perfluoro-n-decanoic acid (PFDA)	335-76-2	ND	15	--
29	Ammonium perfluoro-n-decanoate (NH ₄ -PFD) ^{Ab}	3108-42-7	N/A	--	--
30	Sodium perfluoro-n-decanoate (Na-PFD) ^{Ab}	3830-45-3	N/A	--	--
31	Perfluoro-n-undecanoic acid (PFUnA)	2058-94-8	ND	15	--
32	Perfluoro-n-dodecanoic acid (PFDoA)	307-55-1	ND	15	--
33	Perfluoro-n-tridecanoic acid (PFTTrDA)	72629-94-8	ND	15	--
34	Perfluoro-n-tetradecanoic acid (PFTeDA)	376-06-7	ND	15	--

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35	Perfluoro(3,7-dimethyloctanoic acid) (PF-3,7-DMOA)	172155-07-6	ND	15	--
	Sum of C9-C14 Perfluoro carboxylic acids and salts	--	ND	--	25
36	2H,2H,3H,3H-Perfluoro-n-undecanoic acid (4HPFUnA)	34598-33-9	ND	10	--
37	8:2 Fluorotelomer alcohol (8:2 FTOH) ^{Ac}	678-39-7	ND	100	--
38	10:2 Fluorotelomer alcohol (10:2 FTOH) ^{Ac}	865-86-1	ND	100	--
39	10:2 Fluorotelomer acrylate (10:2 FTA) ^{Af}	17741-60-5	N/A	--	--
40	10:2 Fluorotelomer methacrylate (10:2 FTMA) ^{Af}	2144-54-9	N/A	--	--
41	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	ND	10	--
	Sum of C9-C14 Perfluoro carboxylic acids related substances	--	ND	--	260
42	Perfluoro-n-hexanesulfonic acid (PFHxS)	355-46-4	ND	10	--
43	Ammonium perfluoro-n-hexane sulfonate (NH ₄ -PFHxS) ^{Ab}	68259-08-5	N/A	--	--
44	Lithium perfluoro-n-hexane sulfonate (Li-PFHxS) ^{Ab}	55120-77-9	N/A	--	--
45	Potassium perfluoro-n-hexane sulfonate (K-PFHxS) ^{Ab}	3871-99-6	N/A	--	--
46	Sodium perfluoro-n-hexane sulfonate (Na-PFHxS) ^{Ab}	82382-12-5	N/A	--	--
	Sum of PFHxS and its salts	--	ND	--	25
47	N-Methylperfluoro-1-hexanesulfonamide (N-Me-FHxSA)	68259-15-4	ND	10	--
48	Perfluorohexane sulfonamide (PFHxSA)	41997-13-1	ND	10	--
	Sum of PFHxS related substances	--	ND	--	1000
49	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	ND	10	--
50	Ammonium perfluoro-N-hexanoate (APFHx) ^{Ab}	21615-47-4	N/A	--	--
	Sum of PFHxA and salts	--	ND	--	25
51	6:2 Fluorotelomer alcohol (6:2 FTOH) ^{Ac}	647-42-7	ND	100	--
52	6:2 Fluorotelomer acrylate (6:2 FTA) ^{Af}	17527-29-6	N/A	--	--
53	6:2 Fluorotelomer methacrylate (6:2 FTMA) ^{Af}	2144-53-8	N/A	--	--
54	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	ND	10	--
	Sum of PFHxA related substances	--	ND	--	1000

Remarks: MDL = Method detection limit
 ND = not detected (Less than MDL)
 N/A = Not Applicable
 ppb=ug/kg = microgram per kilogram
 Ab = PFAS salt compounds were quantified as the corresponding acid.
 Ac = The concentration(s) of n:2 FTOH(s) reported can originate from free n:2 FTOH, side-chain fluorinated polymers and certain PFAS which are PFHxA-, PFOA- or C9-C14 PFCA-related compounds and which are not stable to alkaline hydrolysis.
 Ae = The compounds cannot be determined by EN 17681-1:2025, but would contribute to the amount of PFOA if present in the sample.
 Af = The compounds cannot be determined by EN 17681-1:2025, but would contribute to the amount of the related n:2 FTOH if present in the sample.
 Ah = The compound will convert to PFOS.

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Per- and polyfluoroalkyl substances (PFAS) Target Content Test

With reference to EN 17681-1:2025, determined by LC-MS/MS

No.	Substances List	CAS No.	Result	MDL	Limit
			[ppb] B		
1	Perfluoro-n-octane sulfonic acid (PFOS)	1763-23-1	ND	10	--
2	Potassium perfluoro-n-octane sulfonate (PFOS-K) ^{Ab}	2795-39-3	N/A	--	--
3	Lithium perfluoro-n-octane sulfonate (PFOS-Li) ^{Ab}	29457-72-5	N/A	--	--
4	Ammonium perfluoro-n-octanesulfonate (PFOS-NH ₄) ^{Ab}	29081-56-9	N/A	--	--
5	Bis(2-hydroxyethyl)ammoniumperfluoro-n-octane sulfonate (PFOS-NH ₂ (C ₂ H ₄ OH) ₂) ^{Ab}	70225-14-8	N/A	--	--
6	Tetraethyl ammonium perfluoro-n-octane sulfonate (PFOS-N(C ₂ H ₅) ₄) ^{Ab}	56773-42-3	N/A	--	--
7	Didecyl(dimethyl) azaniumperfluoro-n-octane sulfonate (PFOS- N(C ₁₀ H ₂₁) ₂ (CH ₃) ₂) ^{Ab}	251099-16-8	N/A	--	--
	Sum of PFOS and its salts	--	ND	--	25
8	Perfluoro-1-octanesulfonamide (FOSA)	754-91-6	ND	10	--
9	N-Methylperfluoro-1-octanesulfonamide (N-MeFOSA)	31506-32-8	ND	10	--
10	N-Ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2	ND	10	--
11	2-(N-Methylperfluoro-1-octanesulfonamido)-ethanol(N-MeFOSE)	24448-09-7	ND	10	--
12	2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol(N-EtFOSE)	1691-99-2	ND	10	--
13	Perfluoro-1-octanesulfonyl fluoride(PFOSF) ^{Ah}	307-35-7	N/A	--	--
	Sum of PFOS related substances	--	ND	--	1000
14	Perfluoro-n-octanoic acid (PFOA)	335-67-1	ND	10	--
15	Ammonium perfluoro-n-octanoate (APFO) ^{Ab}	3825-26-1	N/A	--	--
16	Sodium perfluoro-n-octanoate (Na-PFO) ^{Ab}	335-95-5	N/A	--	--
17	Potassium perfluoro-n-octanoate (K-PFO) ^{Ab}	2395-00-8	N/A	--	--
18	Silver perfluoro-n-octanoate (Ag-PFO) ^{Ab}	335-93-3	N/A	--	--
19	Perfluoro-n-octanoyl fluoride (F-PFO) ^{Ab}	335-66-0	N/A	--	--
	Sum of PFOA and salts	--	ND	--	25
20	Methyl perfluoro-n-octanoate(Me-PFOA) ^{Ae}	376-27-2	N/A	--	--
21	Ethyl perfluoro-n-octanoate (Et-PFOA) ^{Ae}	3108-24-5	N/A	--	--
22	8:2 Fluorotelomer alcohol (8:2 FTOH) ^{Ac}	678-39-7	ND	100	--
23	8:2 Fluorotelomer acrylate(8:2 FTA) ^{Af}	27905-45-9	N/A	--	--
24	8:2 Fluorotelomer methacrylate(8:2 FTMA) ^{Af}	1996-88-9	N/A	--	--
25	8:2 Fluorotelomer sulfonic acid(8:2 FTS)	39108-34-4	ND	10	--
	Sum of PFOA related substances	--	ND	--	1000
26	Perfluoro-n-nonanoic acid (PFNA)	375-95-1	ND	10	--
27	Sodium perfluoro-n-nonanoate (Na-PFN) ^{Ab}	21049-39-8	N/A	--	--
28	Perfluoro-n-decanoic acid (PFDA)	335-76-2	ND	15	--
29	Ammonium perfluoro-n-decanoate (NH ₄ -PFD) ^{Ab}	3108-42-7	N/A	--	--
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33	Perfluoro-n-tridecanoic acid (PFTrDA)	72629-94-8	ND	15	--
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48	Perfluorohexane sulfonamide (PFHxSA)	41997-13-1	ND	10	--
	Sum of PFHxS related substances	--	ND	--	1000
49	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	ND	10	--
50	Ammonium perfluoro-N-hexanoate (APFHx) ^{Ab}	21615-47-4	N/A	--	--
	Sum of PFHxA and salts	--	ND	--	25
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 Ah = The compound will convert to PFOS.

-End of The Test Report-