

**The Committee for Conformity Assessment of Accreditation and Certification on
Functional and Technical Textiles**

Specified Requirements of Oil Repellency Textiles

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Specified Requirement Execution Team		

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Document Revision History

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Edition	Revision Reason and Content Description	Revised Page	Revised Date
1.0	New issuance		2009/03/27
2.0	Revision according to resolution 2014/07/31 of review committee.		2014/07/31

1. Scope: according to the provisions of CNS 11308, Section 1.
2. Definitions: according to the provisions of CNS 11308, Section 2.
3. Grades: as described in Table 1 Oil Repellency Grades.

Table 1 Standard Oil Test

Oil no.	Composition	Density (kg/L)	Surface tension (25°C) (dynes/cm)	Melting point, boiling point (°C) AATCC standard applicable
	English			
0	None	---	---	---
1	Kaydol (naphtha)	0.84-0.87	31.5	348 (boiling point)
2	Kaydol: n-hexadecane (65:35 by volume)	0.82	---	
3	n-hexadecane	0.77	27.3	17~18 (melting point)
4	n-tetradecane	0.76	26.4	4~6 (melting point)
5	n-dodecane	0.75	24.7	-10.5~-9.0 (melting point)
6	n-decane	0.73	23.5	173~175 (boiling point)
7	n-octane	0.70	21.4	124~126 (boiling point)
8	n-heptane	0.69	19.8	98~99 (boiling point)

Note: did not pass grade 1 oil tester

4. Test conditions:
 - 4.1 Test environment: standard temperature and humidity for textile tests is $20\pm 2^{\circ}\text{C}$, $65\pm 4\%$ R.H., at least 4 hours.
 - 4.2 Sampling and preparation: cut at least 3 20 cm x 20 cm sample pieces.
 - 4.3 Sampling method: sampling should not be conducted at a distance of 1/10 width from selvage; small samples without selvage are an exception, need different vertical and horizontal directions.

5. Test method:

Conducted according to provisions in CNS 11308, Section 8.

6. Ratings:

According to provisions in CNS 11308, Section 9.

7. Washing method:

7.1 According to product standard washing provisions or conditions agreed by interested parties, refer to Table 2. (Only applies to stirring machines with upper-middle openings in CNS 15140).

7.2 Fill the water to a certain level (18 gal are approximately 68L), adjust water temperature.

7.3 Add standard cleaner $66\pm 1\text{g}$ (model WOB or same level product), total weight of samples plus wash loading materials is $1.8\pm 0.1\text{kg}$ is placed into the washing machine and washed.

Table 2 Washing method

Washing cycle	Water temperature	Drying method
(1) Normal/Cotton Sturdy	(II) $27\pm 3^{\circ}\text{C}$	(A) Hang dry
(2) Delicate	(III) $41\pm 3^{\circ}\text{C}$	(B) Drip dry
(3) Durable Press	(IV) $49\pm 3^{\circ}\text{C}$	(C) Flat dry
	(V) $60\pm 3^{\circ}\text{C}$	(D) Flat iron dry
	(VI) $70\pm 3^{\circ}\text{C}$	(E) Roll dry
		i. Normal
		ii. Durable
		iii. Delicate

8. Mark:

Washing condition Grade Type	Status	After washing 10 times	Reference purposes
I	Over 5	Over 3	Durable oil repellent textile
II	Over 5	---	General oil repellent textile

9. Reference standard:

CNS 11038 L 3217-2012	Oil Repellency test method for textiles
AATCC 118-2013	Oil Repellency: Hydrocarbon Resistance Test
CNS 15140 L3263-2007	Family washing and drying procedures of textiles testing
ISO 14419-2012	Textiles – Oil repellency-Hydrocarbon resistance test

10. Supplementary:

This standard has been reviewed by the leader of the Specified Requirement Execution Team, and is to be issued after being approved by the chairman of the review committee, same for all revisions.