MEISEI CHEMICAL WORKS, LTD

Speciality Chemical and Auxiliaries

MEIKANATE TP-10

Cross-linking agent for ASAHI GUARDs

CHARACTERISTICS

MEIKANTE TP-10, a cross-linking agent, greatly improves durability of water and oil repellency to washing when it is used in combination with various ASAHI GUARD. Heavy duty water repellent fabrics like military uniforms, sports-wears, diaper covers, etc require high durability to many times washing but it was rather difficult to get such high durability with fluoro-chemical water and oil repellent agents especially in case of cotton or cotton blended fabrics.
A combination use of MEIKANATE TP-10 with various ASAHI GUARD enables such highly durable water and oil repellent finish.

GENERAL PROPERTIES

Appearance	: White milky emulsion
Ionic activity	: Nonionic
pH (as product)	: 6 - 8
Solubility	: Easily dispersible in water

APPLICATION

Standard quantity to be used is 5 - 20 g/l. MEIKANATE TP-10 shows sufficient effect by conventional finishing method when added to ASAHI GUARD finishing bath.

Note:
As MEIKANATE TP-10 is a thermo-plastic type cross-linking agent, it makes hand of finished fabric harder if it is used too much. So it is advisable to test in advance. When applied on synthetic fabrics like pure polyester or polyamide, an unique hand with elastic touch can be obtained.

TEST 1 (for 100% cotton)

Treating conditions

Pad ; 1dip 1 nip pick-up ; 65%
Dry ; 110℃ x 1.5 min.
Cure ; 170℃ x 1 min.

RESULTS

After HL. fabric was dried at room temperature (air dried) or at 100℃ x 2 min.(hot air dried).*

Table 1. 100% cotton broad

(%)

		1	2	3	4	5	6
AG-415		5	5	5	-	-	-
AG-925		-	-	-	5	5	5
MEIKANATE TP-10		-	1	1.5	-	1	1.5
Water repellency	Initial	100	100	100	100	100	100
	HL-10	0	80	90	50	80	90
	HL-20	0	70-	70	0	70-	70
	HL-30	0	50	70	0	50	70
	HL-30(*)	0	80	90-	0	70	90-
Oil repellency	Initial	6	6	6	6	6+	6
	HL-10	0	0	1	0	4	5-
	HL-20	0	0	0	0	2	3-
	HL-30	0	0	0	0	2	3-
	HL-30(*)	0	3	5	0	5	6-

TEST 2 Polyester/cotton fabric (65/35)

Treating conditions

Pad ; 1dip 1 nip Pick-up; 60%
Dry ; 110℃ x 1.5 min.
Cure; 170℃ x 2 min.

RESULTS

After HL. fabric was dried at room temperature (air dried) or at 100℃ x 2 min.(hot air dried).*

Table 2. Polyester cotton broad (65/35)

(%)

No.		1	2	3	4	5	6
AG-415		5	5	5	-	-	-
AG-925		-	-	-	5	5	5
MEIKANATE TP-10		-	1	1.5	-	1	1.5
Water repellency	Initial	100	100	100	100	100	100
	HL-10	50-	70	80-	50	80	90
	HL-20	0	70	70+	50	80-	80
	HL-30	0	50+	70-	50	70	70+
	HL-30(*)	50	90-	90-	50	90-	90+
Oil repellency	Initial	6	6	6	6	6+	6
	HL-10	0	0	1	0	4	5-
	HL-20	0	0	0	0	2	3-
	HL-30	0	0	0	0	2	3-
	HL-30(*)	0	3	5	0	5	6-

EVELUATION

- Water repellency : JIS L 1092-92.5.2.(Spray method)
- Oil repellency : AATCC-118 method
- Durability : JIS L 1092-92.3.2 c method

Home laundering (H.L.)

- HL-5 After 5 times H.L.
- HL-10 After 10 times H.L.
- HL-20 After 20 times H.L.
- HL-30 After 30 times H.L.

CAUTION

1. MEIKANATE TP-10 is stable if stored in normal condition but it is recommended to stir before use for sure. Avoid freezing.

2. Too much use may cause
   1) Decrease of light fastness
   2) Yellowing of white fabric
   3) Change of color shade
   4) Decrease of resistance to NOx gas.

3. Refer Material Safety Data Sheet before use.