

1 What is Lipidure®

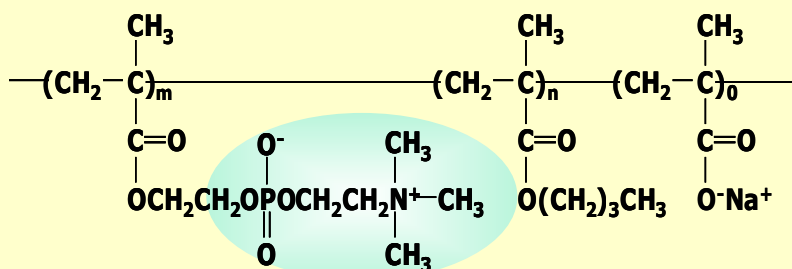
Lipidure is the polymers which consist of 2-methacryloyloxyethylphosphorylcholine (MPC) which has the same structure as polar group of phospholipid, showing high hydrophilic nature and extremely high biocompatibility. Lipidure is widely used as a coating agent for artificial organ or eye care products due to high biocompatibility.

2 Properties of Lipidure®-A、C

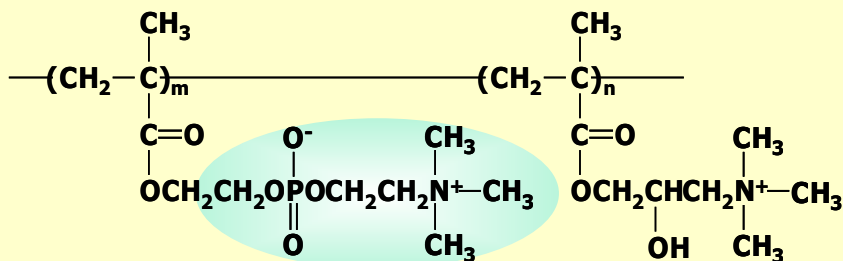
- ① Lipidure®-A、C have haircare effect by forming hydrogel on the hair.
- ② Lipidure®-A has anionic groups in its structure, that give plenty of moisture to hair fiber and prevent hair from spreading by reducing the static electricity
- ③ Lipidure®-C has cationic groups in its structure, that form hydrogel on hair fiber uniformly and result in giving smooth combing.

3 Product overview of Lipidure®-A、C

Lipidure®-A



Lipidure®-C

**Product name****INCI****Active conc.**

Lipidure®-A

POLYQUATERNIUM-65, WATER, PHENOXYETHANOL

5%

Lipidure®-C

POLYQUATERNIUM-64, WATER, PHENOXYETHANOL

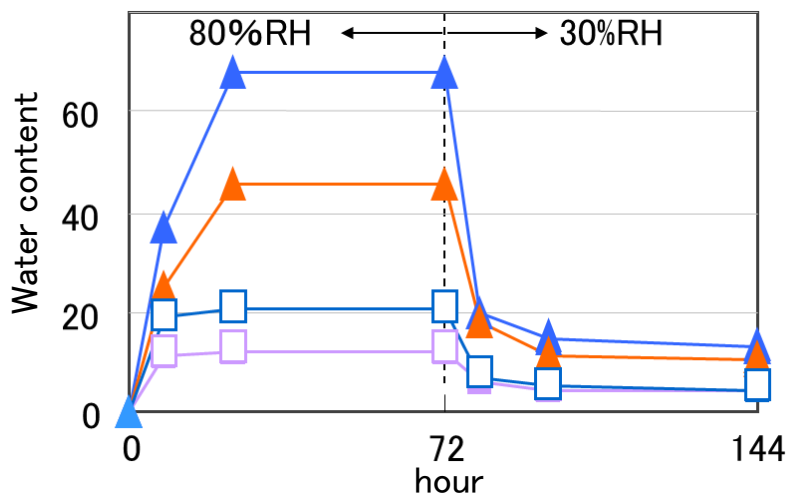
5%

4 Moisture retention of Lipidure[®]-A、C

<<Method>>

- (1) Weigh empty small plastic pan
- (2) Pour each material solution into the pan and dry it thoroughly
- (3) Weigh each pan for the initial material weight
- (4) Store at 30°C, 80%RH for 3 days with weighing the pans
- (5) Store at 20°C, 30%RH for 3 days with weighing the pans

▲ Lipidure[®]-A □ DIMETHICONE
▲ Lipidure[®]-C □ POLYQUATERNIUM-7

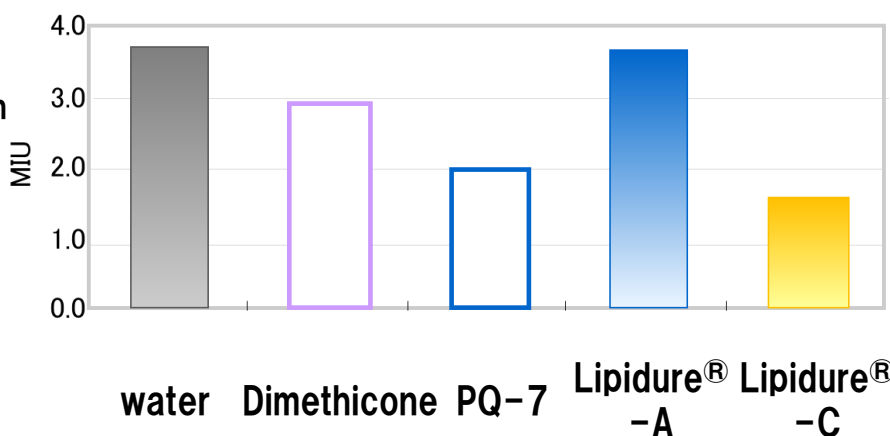


Lipidure[®]-A、C retains plenty of moisture compared to conventional film formers

5 Reduction of friction of Lipidure[®]-C

<<Method>>

- (1) Immerse the damaged hair in the polymer aqueous solution at 1% as an active matter
- (2) Measure the friction of hair with friction tester at 20°C, 40%RH



Lipidure[®]-C improves smoothness of hair in wet condition

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