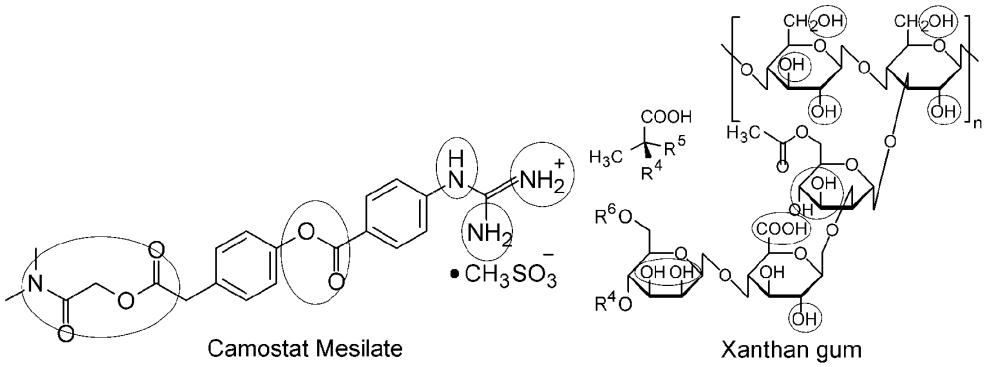
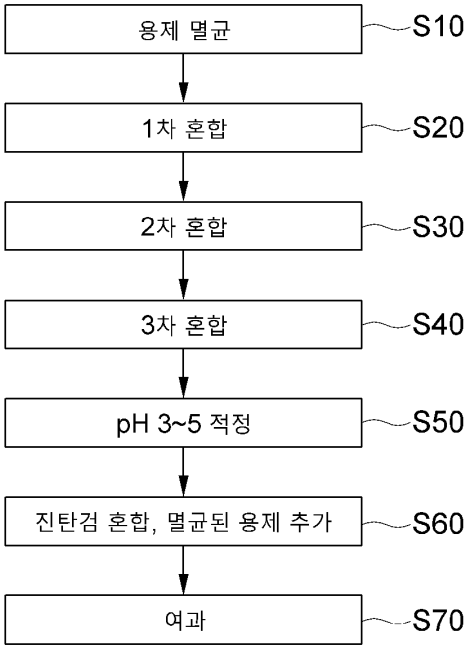
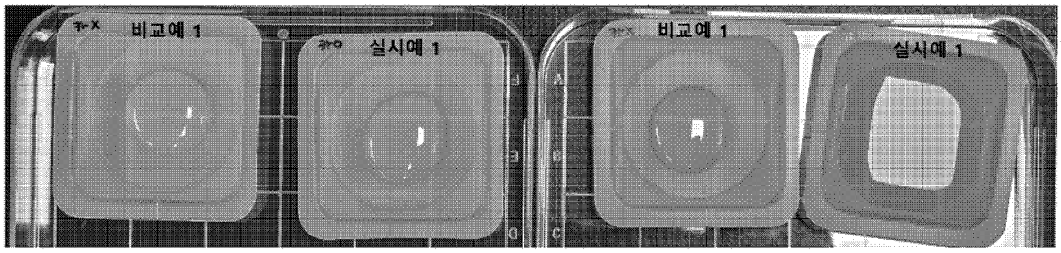
[도1]


Camostat Mesilate
Xanthan gum

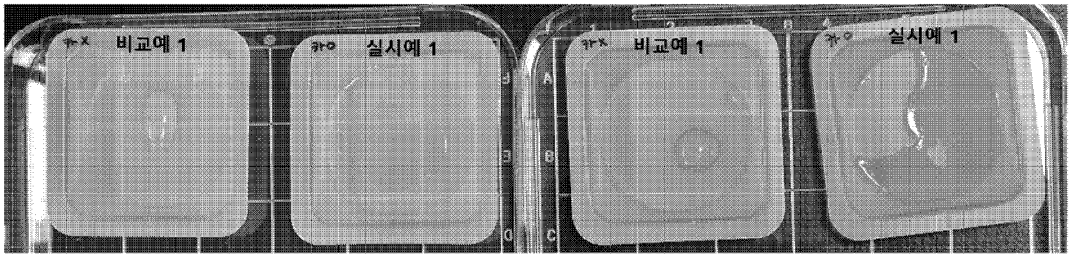
[도2]


용제 멸균
S10
1차 혼합
S20
2차 혼합
S30
3차 혼합
S40
pH 3~5 적정
S50
진탄검 혼합, 멸균된 용제 추가
S60
여과
S70

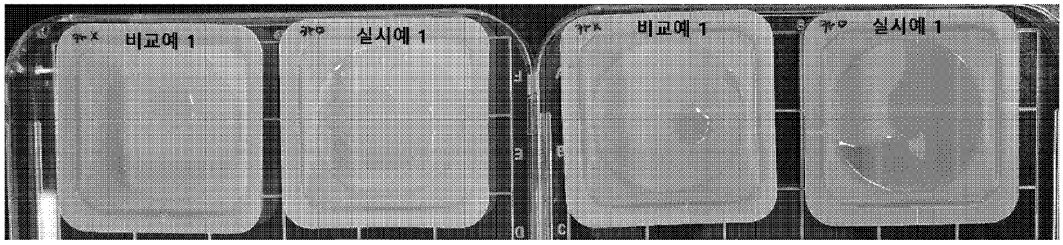
[도3]


비교예 1
실시예 1
비교예 1
실시예 1

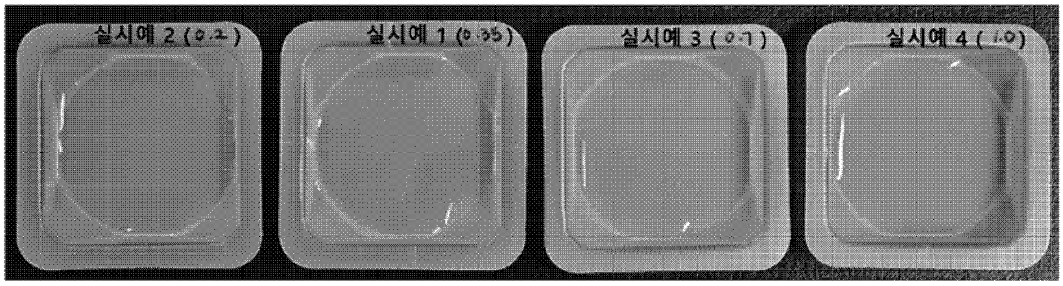
[도4]


비교예 1
실시예 1
비교예 1
실시예 1

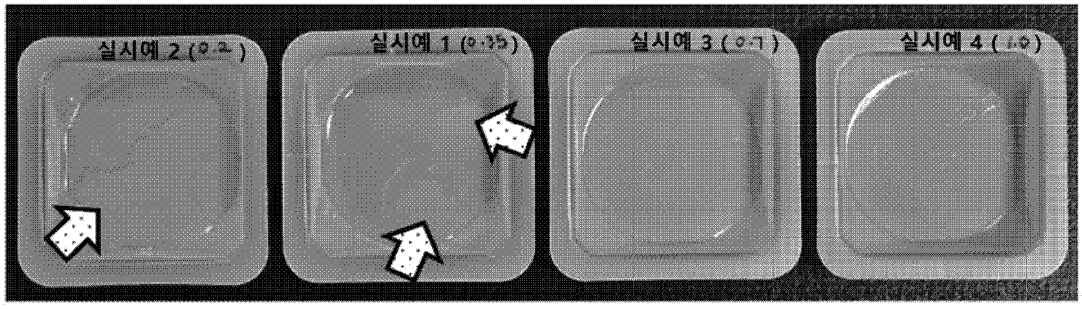
[도5]


비교예 1
실시예 1
비교예 1
실시예 1

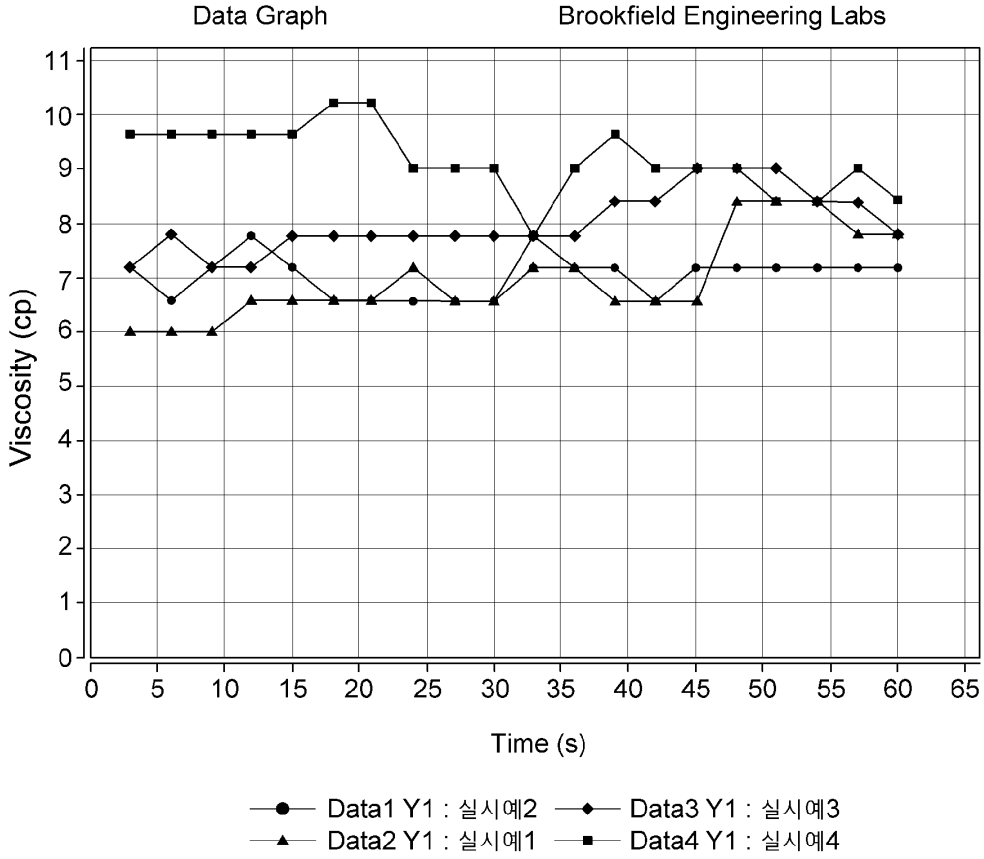
[도6]


실시예 2 (0.2)
실시예 1 (0.35)
실시예 3 (0.7)
실시예 4 (1.0)

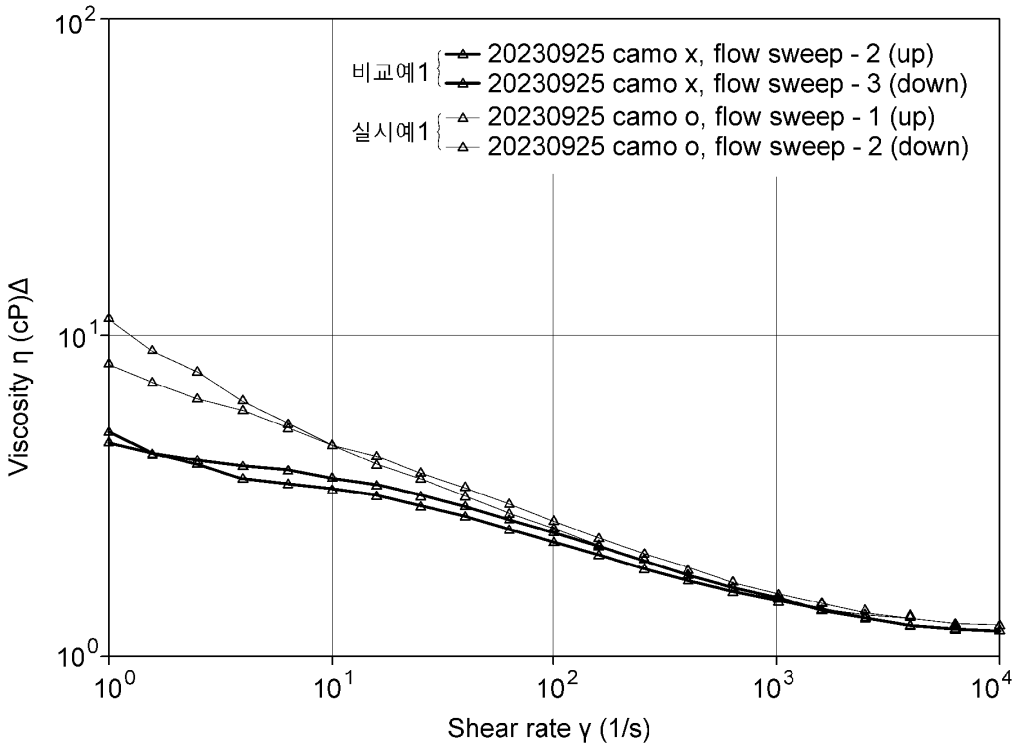
[도7]


실시예 2 (0.2)
실시예 1 (0.35)
실시예 3 (0.7)
실시예 4 (1.0)

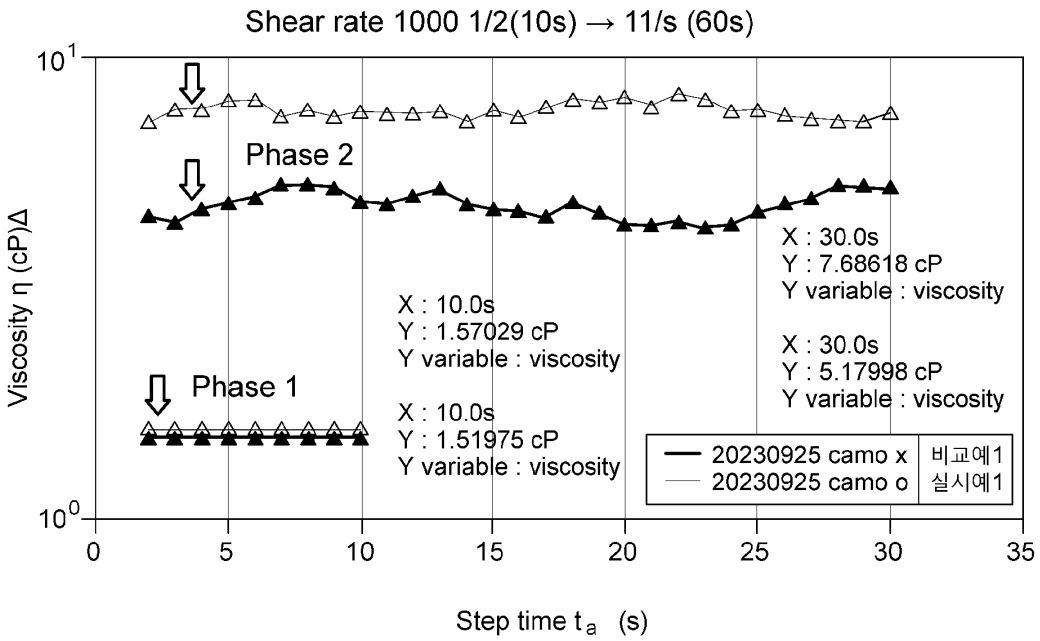
[도8]


Data Graph
Brookfield Engineering Labs
Viscosity (cp)
Time (s)
0
1
2
3
4
5
6
7
8
9
10
11
0
5
10
15
20
25
30
35
40
45
50
55
60
65
Data1 Y1 : 실시예2
Data3 Y1 : 실시예3
Data2 Y1 : 실시예1
Data4 Y1 : 실시예4

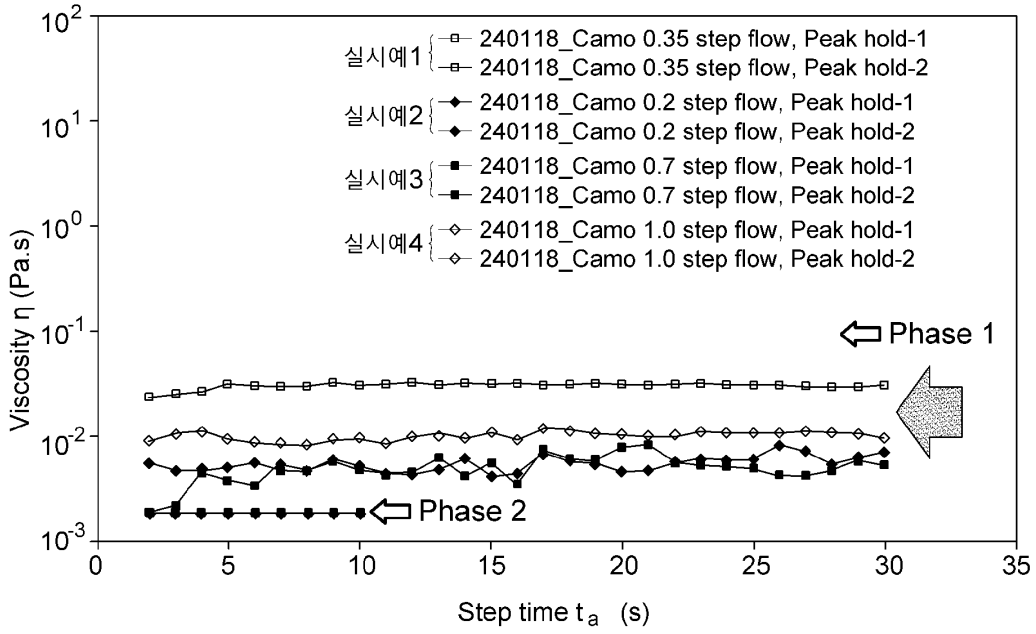
[도9]


비교예1
20230925 camo x, flow sweep - 2 (up)
20230925 camo x, flow sweep - 3 (down)
실시예1
20230925 camo o, flow sweep - 1 (up)
20230925 camo o, flow sweep - 2 (down)
Viscosity η (cP)Δ
Shear rate γ (1/s)

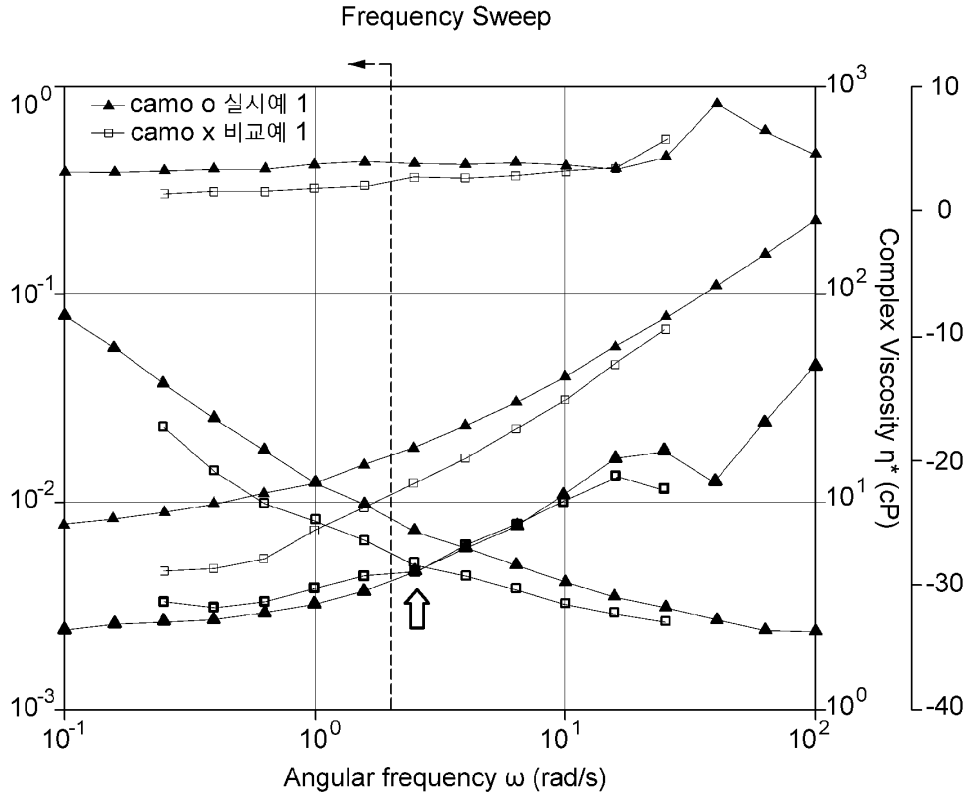
[도10]


Shear rate 1000 1/2(10s) → 11/s (60s)
Phase 2
Phase 1
X : 30.0s
Y : 7.68618 cP
Y variable : viscosity
X : 10.0s
Y : 1.57029 cP
Y variable : viscosity
X : 30.0s
Y : 5.17998 cP
Y variable : viscosity
X : 10.0s
Y : 1.51975 cP
Y variable : viscosity
20230925 camo x
20230925 camo o
비교예1
실시예1
Viscosity η (cP)Δ
Step time t a (s)

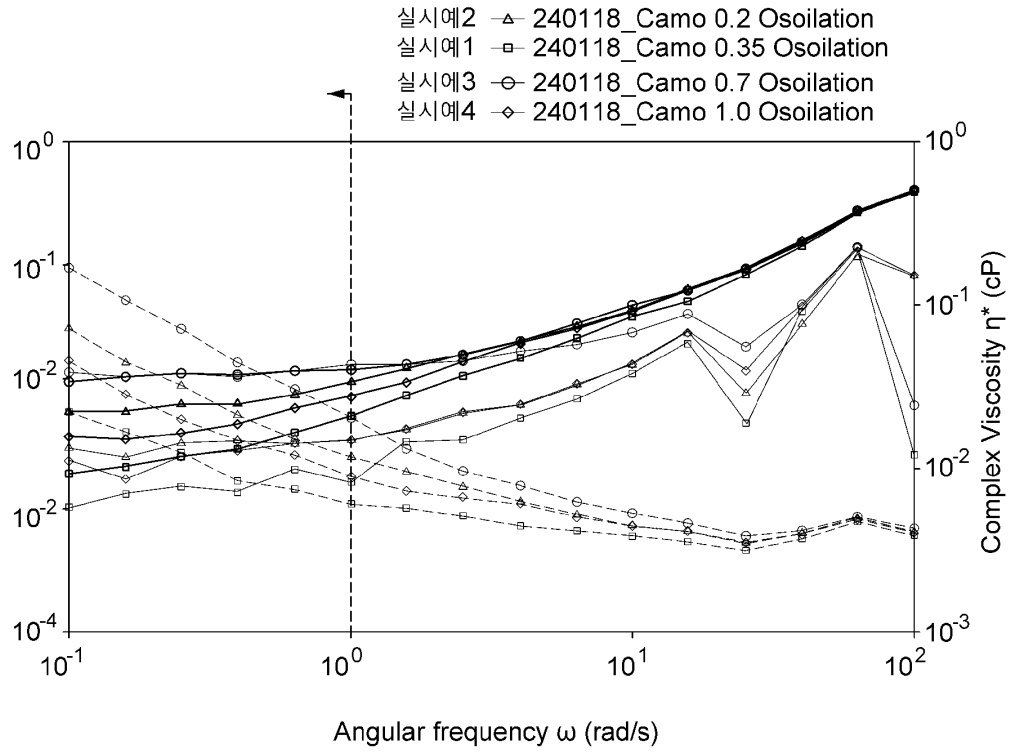
[도11]


실시예1
240118_Camo 0.35 step flow, Peak hold-1
240118_Camo 0.35 step flow, Peak hold-2
실시예2
240118_Camo 0.2 step flow, Peak hold-1
240118_Camo 0.2 step flow, Peak hold-2
실시예3
240118_Camo 0.7 step flow, Peak hold-1
240118_Camo 0.7 step flow, Peak hold-2
실시예4
240118_Camo 1.0 step flow, Peak hold-1
240118_Camo 1.0 step flow, Peak hold-2
Phase 1
Phase 2
Viscosity η (Pa.s)
Step time t a (s)

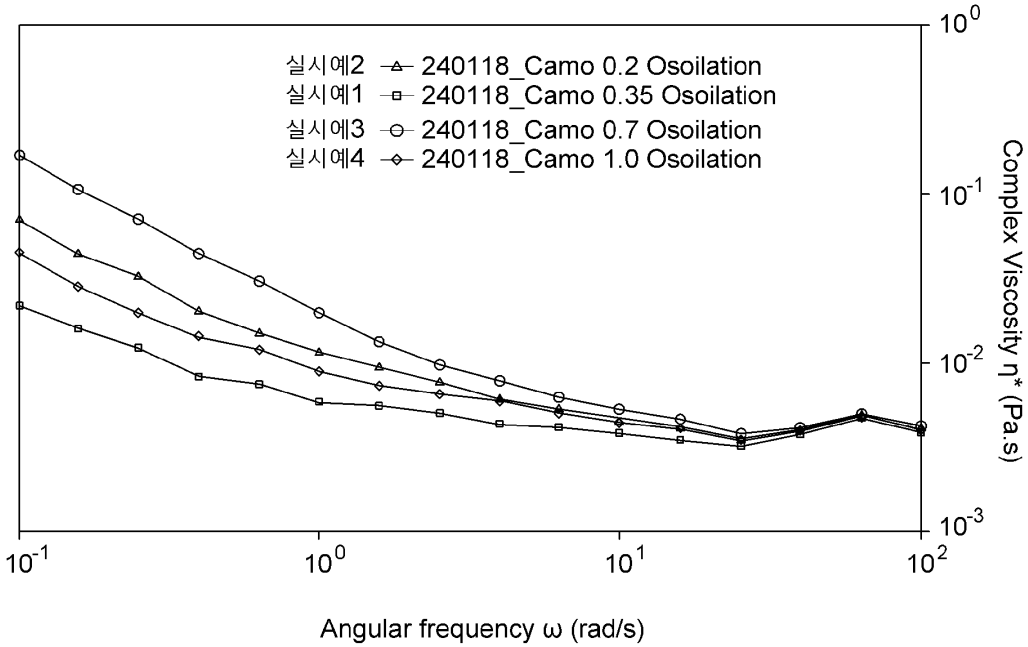
[도12]


Frequency Sweep
camo o 실시예 1
camo x 비교예 1
Complex Viscosity η* (cP)
Angular frequency ω (rad/s)

[도13]


실시예2 240118_Camo 0.2 Osoilation
실시예1 240118_Camo 0.35 Osoilation
실시예3 240118_Camo 0.7 Osoilation
실시예4 240118_Camo 1.0 Osoilation
Complex Viscosity η* (cP)
Angular frequency ω (rad/s)

[도14]


실시예2 240118_Camo 0.2 Osoilation
실시예1 240118_Camo 0.35 Osoilation
실시예3 240118_Camo 0.7 Osoilation
실시예4 240118_Camo 1.0 Osoilation
Complex Viscosity η* (Pa·s)
Angular frequency ω (rad/s)