

,

1.

N-

(N-methylmorpholin oxide ; NMMO)

(Tencel)

가

,

가

.

가

,

(cellulase)

가

.

, ,

X-

,

가

.

2.

(lactose)

,

,

.

.

, ,

< 1>

.

< 1 >

소개	빈수 (Ne) 경사×위사	밀도(올/in) 경사×위사	중량 (g/m ²)
면	30×40	102×69	121
텐셀	30×30	94×69	147

Trichoderma viride Cellucla ST 1.5L(Novo Nordisk)

4 M $\varnothing$ /l pH 4.6

, (3l) 50 , 1:40

.

(autograb) AG-5000D .

(elmendorf) , KES-FB2

(hysteresis) .

, K/S .

가 X-

(DIP-100) (imaging plate) .

3.

3.1

< 1>

20% 1.3% 가 , 가

.

3.2

<

2> < 7> .

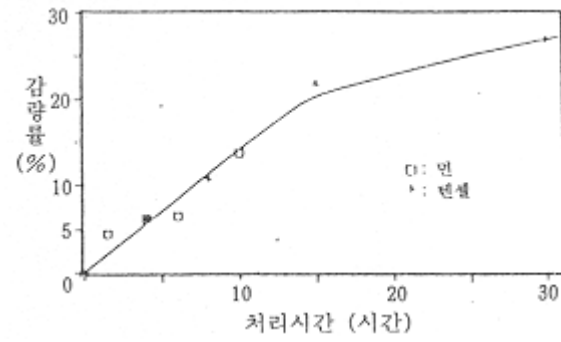
10.7% 46.2kgf가 92.3kgf

.

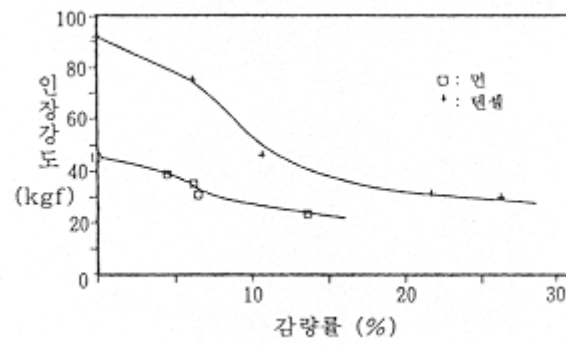
45.5kgf .

, 10.7% 50% . 7%

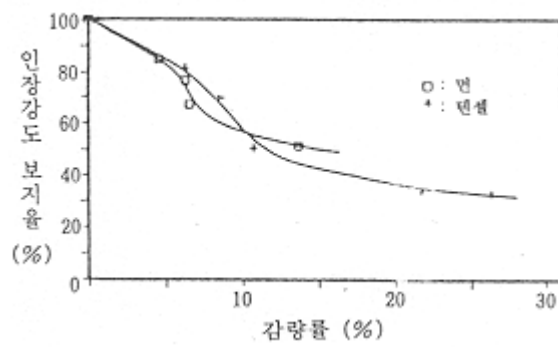
10% 가 가



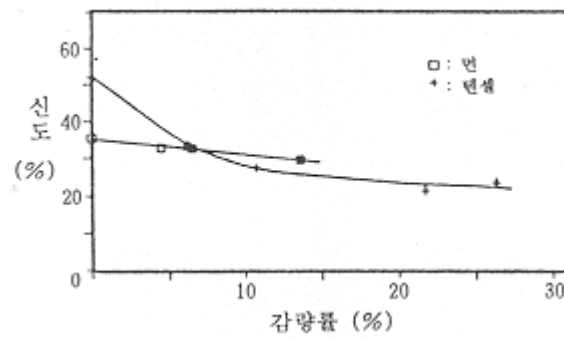
< 1>



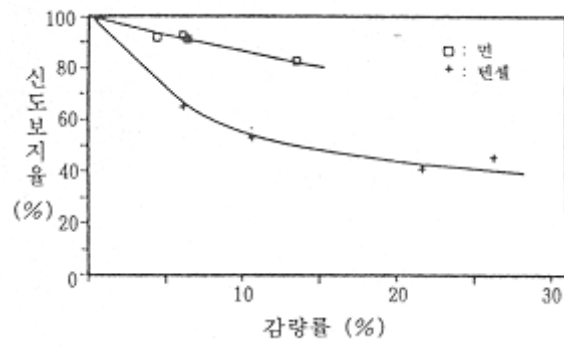
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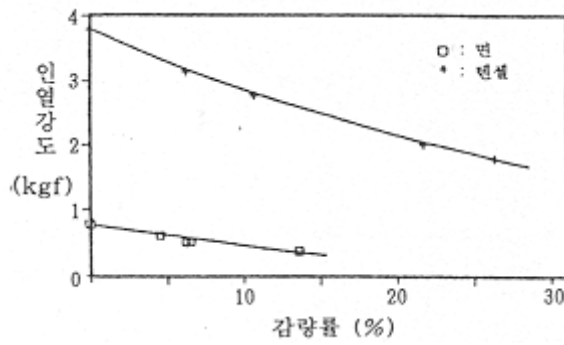
< 3>



< 4>



< 5>



< 6>

10.7%

6.2% 92.7% 65.1% .

10.7%

2,767gf 3.5 가 .

,

.

3.3

< 8> . ,

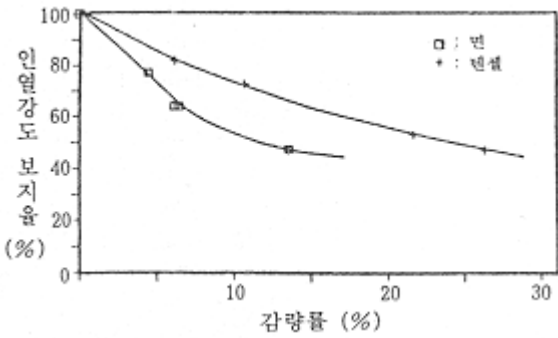
가 가 .

3.4

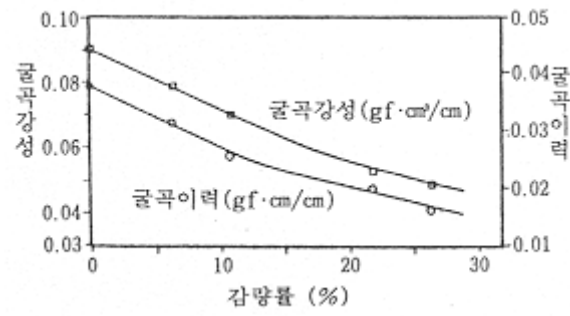
< 9> .

가 가 .

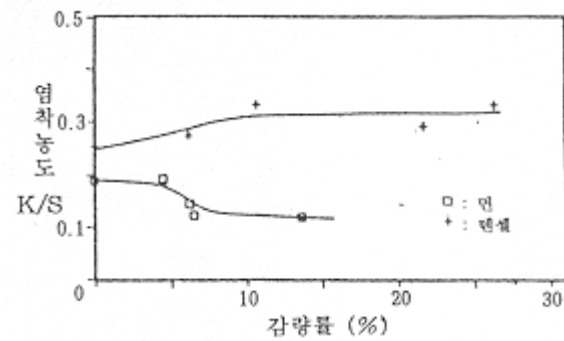
.



< 7>



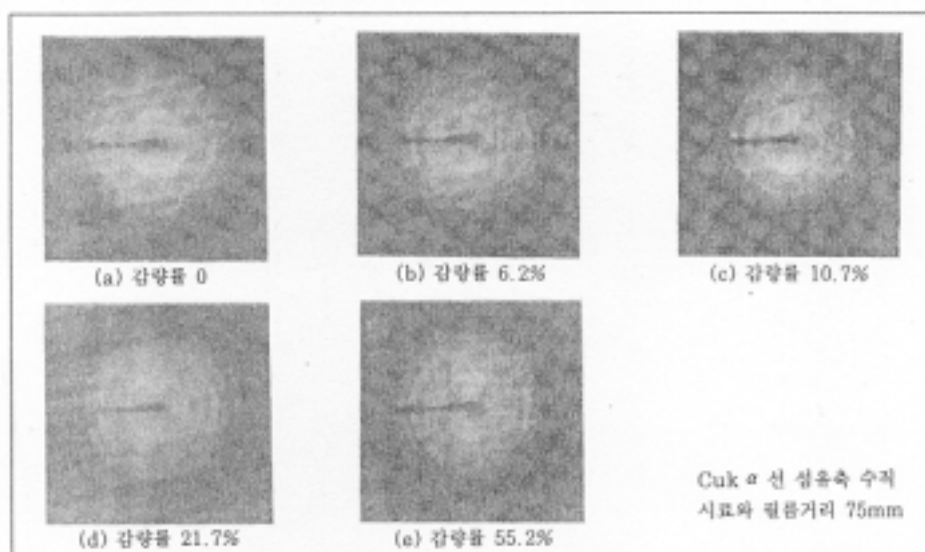
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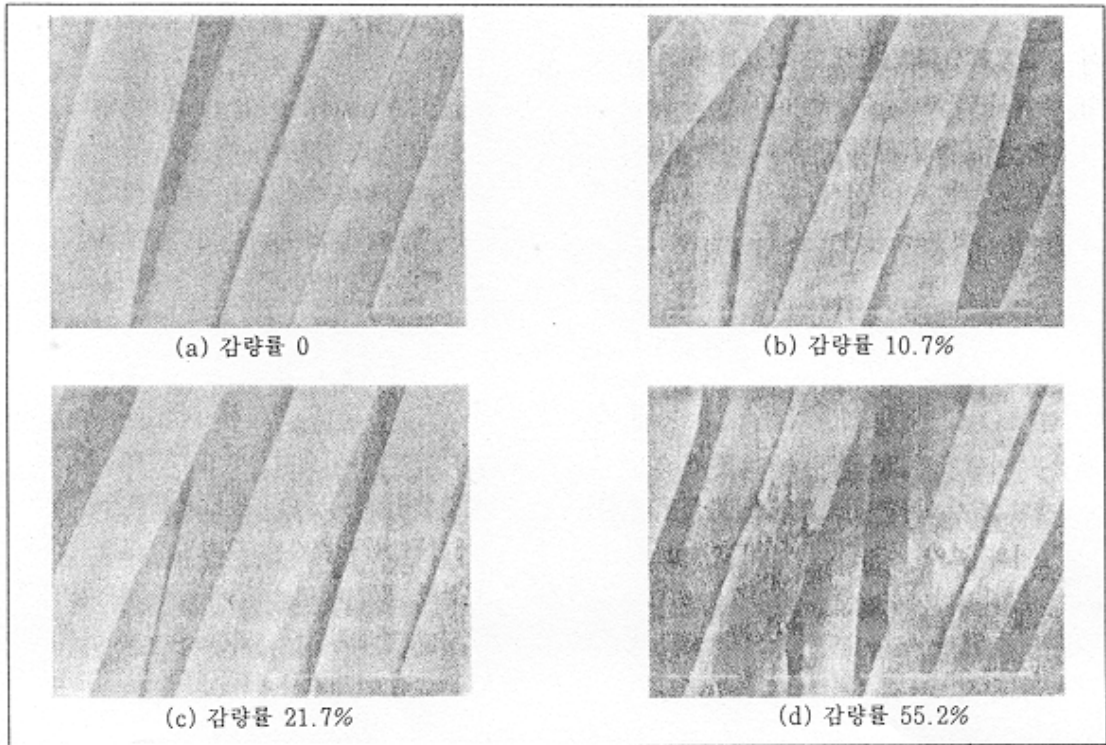
Remasol Brilliant + Blue R 1% owf

1:40, 60 × 60

< 9>



< 10> X-



< 11>

3.5 X-

X- < 10>

$2\theta = 12^\circ$

$2\theta = 20^\circ$

가

가

55.2%(100)

0

가

가

가

10.7%

가

가

10.7%

$2\theta = 15^\circ$

$2\theta = 20^\circ$

가

, 가 가 ,

.

2

0 48.8%, 55.2% 51.8% 3% 가 .
, 13.6% 가 4.6% 가 .

3.6

< 11> .

가

.

, 26%

V

.

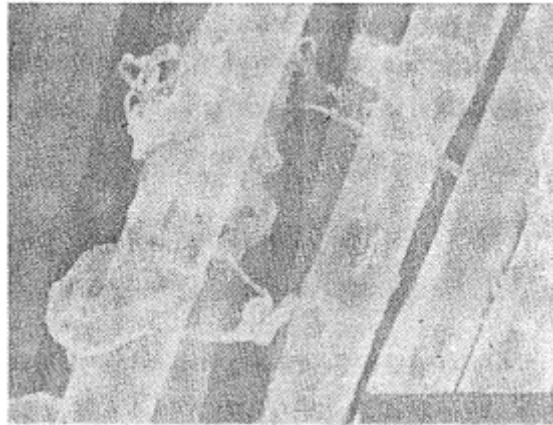
< 12>

.

.

, 10.7% 21.7%

가



< 12> (1500)

4.

Trichoderma viride

X - . X-

가 ,

55.2% 가 0 3% 가 , 가

· , 10%

· , 가 가

·

·