

- 4. PERFILLER 102**
- 5. LACTOSE GRANULE**
- 6. MALTITOL GRANULE &  
ISOMALT GRANULE**



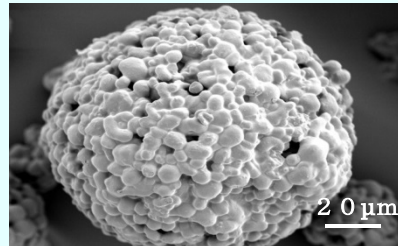
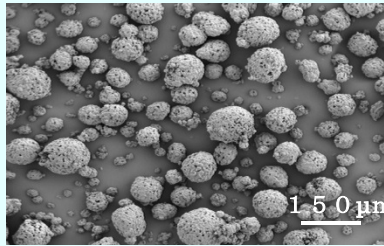
**결합제**

## 4. PERFILLER 102

### ✓ 직타용 STARCH

#### ➤ 건강기능식품 정제 직타용 STARCH

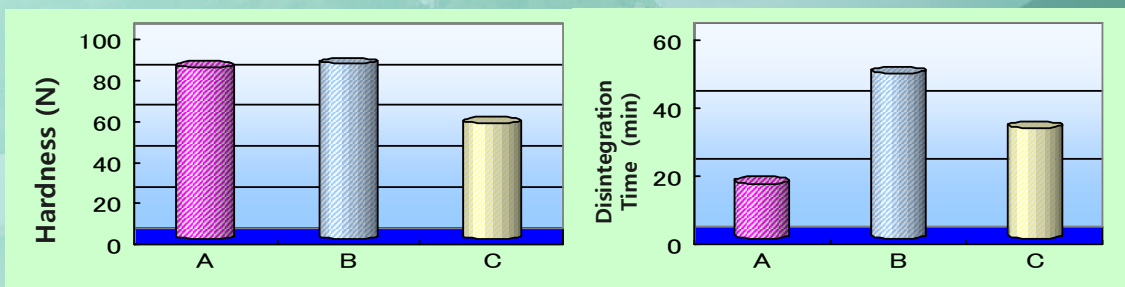
- 유동성 향상
- 정제 HARDENESS 향상 및 붕해시간 감소
- 유효성분 포함 (고함량 사용시 유효성분을 추가하지 않아도 됨)
- NON-GMO (Corn starch)



SEM of Perfiller 102

### ✓ Compression Case1 : Ascorbic Acid Tablet

Formulation	A	B	C
97% Ascorbic Acid Granule	80%	80%	100%
<b>Perfiller 102</b>	20%	—	—
Microcrystalline Cellulose	—	20%	—
Hydrogenated Rapeseed Oil Lubriwax102H	5%	5%	5%
Total	105%	105%	105%



[Compression] Rotary Tableting Machine (HATA) 8mmφ-10R, 180mg/Tab, 30rpm, 10kN

## 4. PERFILLER 102

### ✓ Compression Case 2: Lactoferrin Tablet

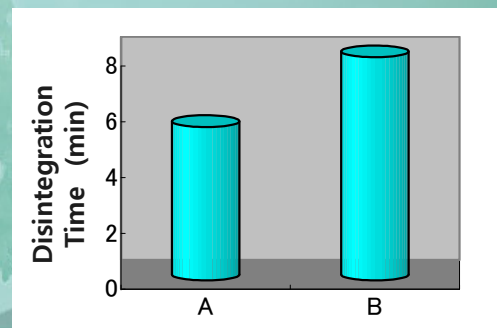
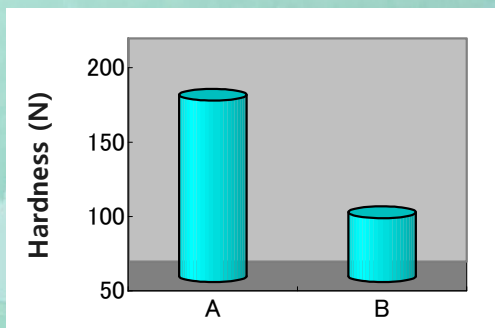
- Perfiller 102는 유효성분을 포함하고 있어서 추가로 유효제를 사용하지 않아도 된다.

Formulation		Lactoferrin	20%
		Perfiller102	80%
Tablet property	Hardness	159.7 N	
	Disintegration Time	6 min	
	Friability	Under 0.01%	

[Compression] Rotary Tableting Machine : Triangle Tablet, 250mg/Tab, 30rpm, 7.5kN

### ✓ Compression Case 3: Ginkgo Biloba Tablet

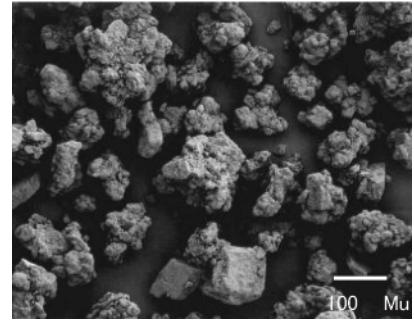
Formulation	A	B
Ginkgo Biloba Powder	8 %	8 %
Perfiller 102	92 %	—
Granulated Lactose	—	77 %
Microcrystalline Cellulose	—	10 %
Carmellose Calcium	—	2 %
Sugar Ester	—	3 %
<b>Total</b>	<b>100 %</b>	<b>100 %</b>



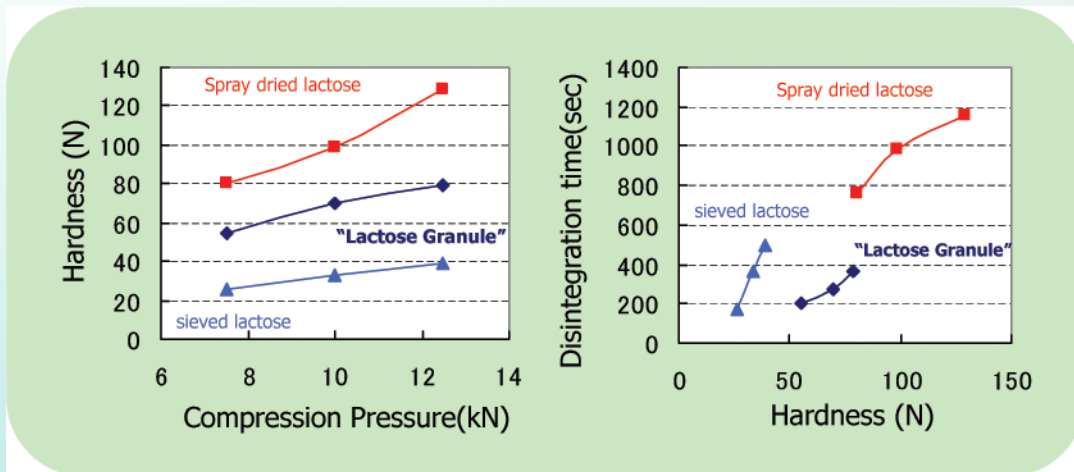
[Compression] Rotary Tableting Machine : Triangle Tablet, 250mg/Tab, 30rpm, 7.5kN

## 5. LACTOSE GRANULE

- ✓ 직타용 LACTOSE
  - 건강기능식품 정제 직타용 LACTOSE
    - 유동성 및 혼화성 향상
    - 정제 HARDENESS 향상 및 붕해시간 감소



- ✓ Lactose Granule은 Spray dried lactose와 Sieved Lactose에 비해 정제의 경도와 붕해도를 향상시킨다.



- ✓ Lactose Granule은 Spray dried lactose와 Sieved Lactose에 비해 유동성이 좋다.

	Lactose Granule	Sieved lactose	Spray dried lactose
Angle of repose	36°	45°	37°

## 6. MALTITOL & ISOMALT GRANULE

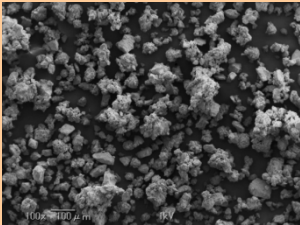
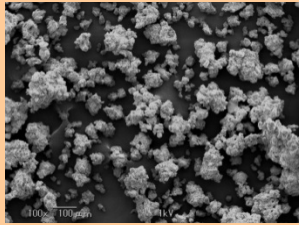
### ✓ 직타용 SUGAR ALCOHOL

#### ➤ MALTITOL GRANULE

- 98% Maltitol Crystalline으로 되어있다.
- 수분 흡수 저하, Active Ingredient를 불안정한 수분으로부터 보호.
- 설탕의 80% 단맛으로 츄어블제품에 적합함.

#### ➤ ISOMALT GRANULE

- 유동성 향상
- 경도 향상

		Maltitol Granule	Isomalt Granule
Particle size	D <sub>10</sub>	50 μm	20 μm
	D <sub>50</sub>	133 μm	106 μm
	D <sub>90</sub>	266 μm	242 μm
Bulk Density		0.47 g/mL	0.38 g/mL
Repose Angle		42 °	39 °
SEM			

### ✓ HARDNESS 및 붕해도 비교

