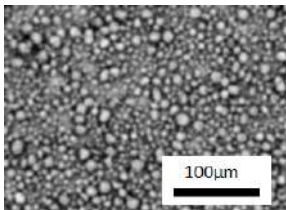


Cellulose Microparticles

A Biobased Alternative to Microplastics

Cellulose Technology by Asahi Kasei

Asahi Kasei is currently developing bio-based and biodegradable microparticles made from cotton-linter based cellulose, which offer a brand-new option as alternatives to conventional non-biodegradable materials. It is possible to give distinctive functionality by controlling the structure of microparticles.



Particle size :
Ave. >1µm (controllable)

Application Areas

By controlling the structure of particles, performance can be improved without chemical modification. It is possible to meet any requirements in each application field.

Sample	Feel	Surface area	Light scattering	Application example
Cellulose Structure A	Soft	Middle	Strong	Cosmetics, paint&coatings, fillers
Cellulose Structure B	Medium	Large	Middle	Carriers, fillers, adsorbent, column packing
Cellulose Smooth	Hard	Small	Weak	Additives
Nylon Smooth	Soft	Small	Weak	Filler, cosmetics



Fillers



Cosmetics



Paint & coating



Column packing

We pride ourselves on working closely with customers for specialized needs.

Key Properties

Alternative to some microplastics

- High biodegradability and purity
- High heat resistance

Customizable & controllable structure

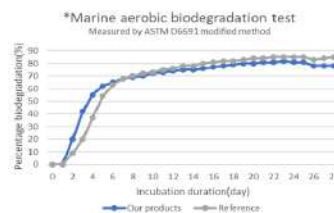
- Distinctive functionality (ex. compactibility) derived from special surface morphology



Tablet production test
Formulation:
sample/talc/mica = 1.0/5.5/3.5 g

Sustainability

- Bio-based material
- Using cotton linter, a by-product of the cotton yield
- No organic solvent used in the manufacturing process
- Biodegradable (soil, marine*)



Asahi Kasei has an extensive track record of more than 90 years in the field of cellulose materials based on cotton linter. Find more information on our solutions here:

