

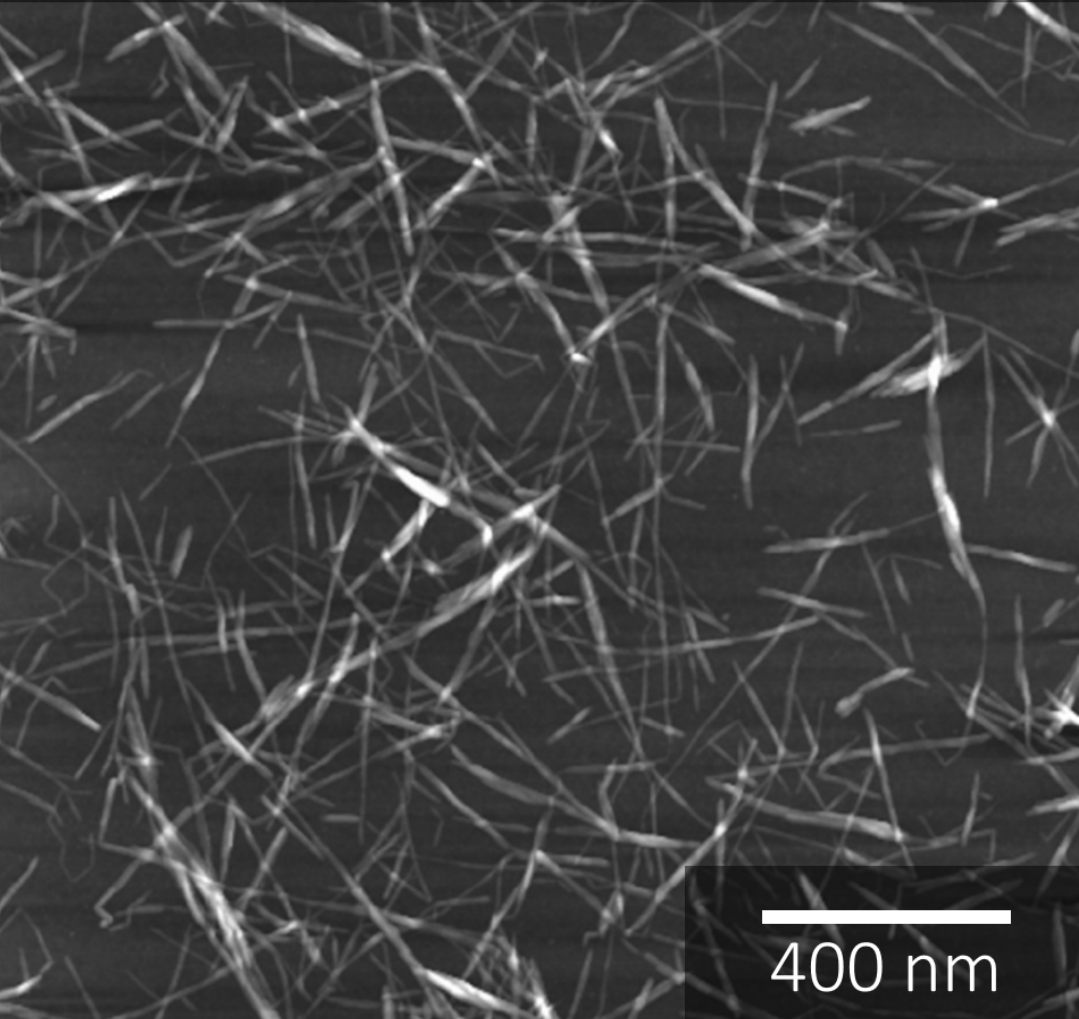
Sustainable Cellulose Microfibers for
Greener & Differentiated Products

FineCell's

CELLULOSE HYDROGEL

- A suspension, not a solution of [Cellulose Microfibers](#) in water
- pH \approx 7, usually delivered with a solid content of 1-2.5%
- Thick and shear thinning
- Stable and homogeneous
- Translucent and odorless
- Neither greasy nor sticky





Features of our Cellulose Micro-/Nanofiber

Dimension

Tunable length 100-900 nm

Width 3-4 nm

Tunable surface charge

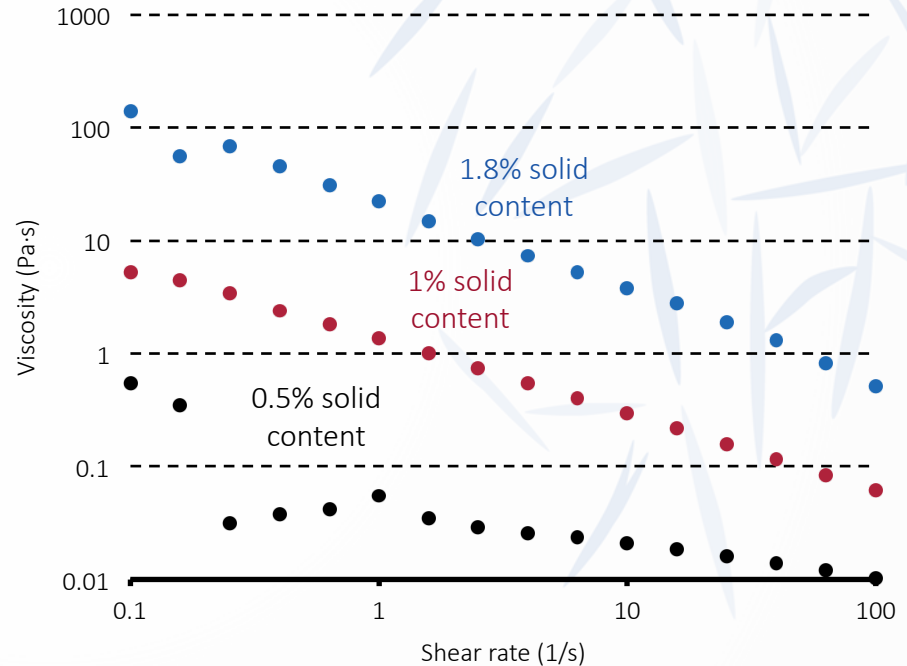
Ranging from 0.1 to 1.1 mmol/g,
corresponding to a nearly uncharged
and an anionic surface (the surface of
our Cellulose Micro-/Nanofiber is
functionalized with carboxyl groups)

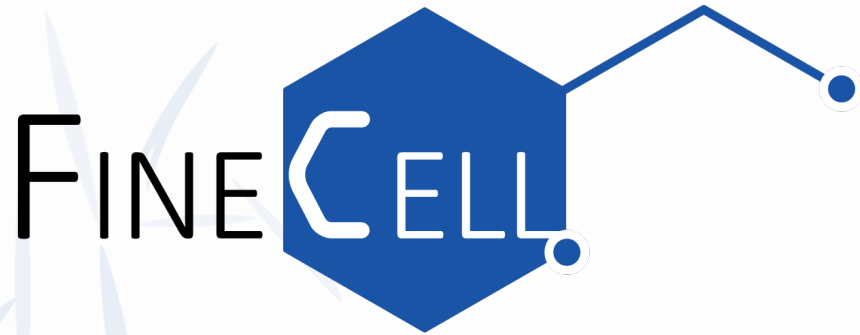
RHEOLOGY VS SOLID CONTENT

| Shear rate (1/s) | Viscosity at 1.8% solid content (Pa·s) | Viscosity at 1% solid content (Pa·s) | Viscosity at 0.5% solid content (Pa·s) |
|------------------|--|--------------------------------------|--|
| 0.1 | 141.8 | 5.2 | 0.5 |
| 1 | 22.0 | 1.4 | 0.05 |
| 10 | 3.8 | 0.3 | 0.02 |

TEST CONDITION

Kinexus Rotational Rheometer (Malvern) at room temperature and in cone-plate geometry. Approximately 1 ml of sample was utilized per run. The viscosity of the samples was measured across the shear rate range of 0.1 s^{-1} to 100 s^{-1} . The samples were equilibrated for 3 min prior to each run.





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