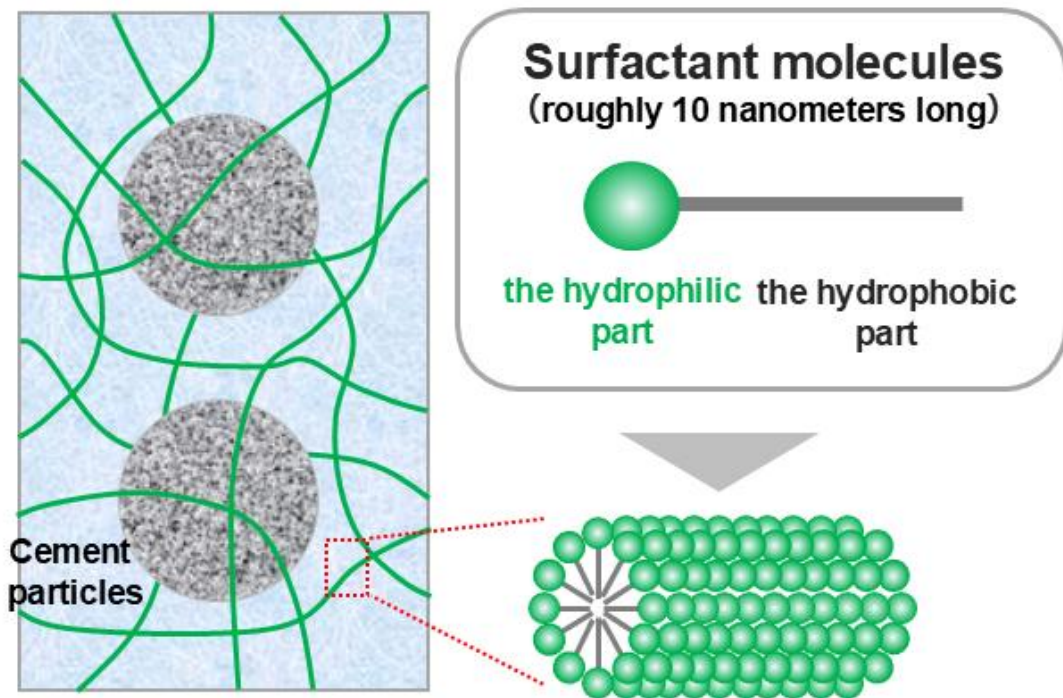


Concrete Modification Technology

A modifier technology that is mixed into concrete used on construction sites to improve workability. Concrete that would normally flow freely becomes elastic like jelly yet flows like honey. Because it becomes less likely to mix with water before setting, it helps minimize environmental contamination and enables safe, reliable construction even in and around water environments—such as for bridges and port revetment works.

<Unique Points>

Surfactant molecules assemble to form elongated “wormlike micelles.” When these “worms” become entangled within the fluid concrete, they create a unique rheological behavior—elastic yet still flowable.



Because it remains flowable, it can flow into and fill even complex, uneven geometries down to the smallest corners.

Anti-washout Concrete With Self-Flowing Properties

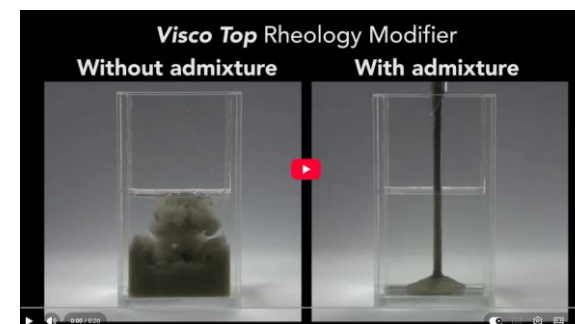
<https://www.youtube.com/watch?v=kwA2Dk4XXKk>



Because it does not readily mix with water even when exposed to it, it helps reduce concerns about water pollution in rivers and seas.

VISCO TOP Rheology Modifier

https://www.youtube.com/watch?v=CvZ0C_KBYuw



Concrete Modification Technology

<Key Benefits>

- By ensuring reliable construction quality, it contributes to safe and secure infrastructure development for society.
- Helps reduce water pollution during construction in the vicinity of underwater and rivers.
- Before it hardens, it can be easily cleaned with water pressure alone, making it easier to wash equipment such as mixer trucks used to transport fresh concrete and reducing the cleaning burden.

<Link to Other Contents>

• Kao Chemicals Global
-Asphalt, Civil Engineering & Construction
<https://chemical.kao.com/global/infrastructure/product/viscotop/history/>

• Kao Official Video
-Concrete Pile Construction, Prevention of Collapse / Water Pollution, Visco Top 300N series (Japanese only)
<https://www.youtube.com/watch?v=7pcOQ8VYFa0>

-Surfactant-based liquid thickener “Visco Top 500K” (Japanese only)
<https://www.youtube.com/watch?v=l6xT8ROmPZo>

-VISCO TOP—Easy-to-clean cement slurry (Japanese only)
https://www.youtube.com/watch?v=pRa_FnqOT-k

-VISCO TOP—High fluidity of VISCO TOP concrete (Japanese only)
<https://www.youtube.com/watch?v=Ln9WPOzwxvU>

-VISCO TOP—Prevention of seepage into gravel ground (Japanese only)
https://www.youtube.com/watch?v=x9Tq0Z_5jaQ

<Concerned Research Areas>

- Product Development Research: Chemicals <https://www.kao.com/global/en/innovation/research-development/product-development/chemicals/>
- Fundamental Research:
 - Material Science <https://www.kao.com/global/en/innovation/research-development/fundamental/material-science/>
 - Production Technology <https://www.kao.com/global/en/innovation/research-development/fundamental/production-technology/>