NOF CORPORATION

2024.8 (Ver.3)

# Aqueous Nanoparticle Dispersant

# MALIALIM® SS−20A

## 1 Feature

●Is excellent at dispersing powder mixtures (titanium oxide : barium carbonate = 1 : 1 (molar ratio)) and is very effective in preventing microparticle aggregation and in lowering the dispersing system viscosity.

●Can impart a negative charge to the powder in the aqueous solution.

●Low content of impurities (alkaline metal and halogen free).

●Demonstrates good thermal decomposition properties in air or nitrogen atmospheres.

## 2 Typical properties and regulatory information

| | | SS−20A*5 |
|---|---|---|
| Properties*1 | Appearance | Yellow～brown liquid |
| | Acid-base | neutrality |
| | Viscosity ($mm^2/s$, 25℃) | 300 |
| | Solid content(%) | 50 |
| Regulatory Information*2 | ENCS (Japan) | ✓ |
| | TSCA (USA) | — |
| | IECSC (China) | —*3 |
| | ECL (Korea) | ✓*4 |
| | TCSI (Taiwan) | ✓*4 |

*1 Representative values, not values of standard.
*2 ✓:On list, —:Not on list
*3 Record (Polymer of Low Concern).
If exporting to China, please contact our sales representative as exporters/importers are limited.
*4 Please contact our sales representative for declaration or registration depending on quantity
*5 Developed product

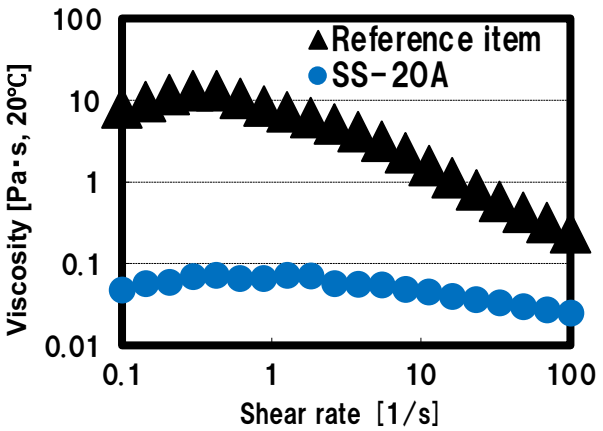
## 3 Additive amount (suggested)

The recommended amount of additive for MALIALIM® SS 20A is 0.5 to 10 wt% of the powder weight. Since the optimal amount of additive depends greatly on factors such as the powder's particle diameter and the specific surface area, we recommend conducting the test with differing amounts of additive to confirm the most suitable amount.

## 4 Evaluation example

<Result of dispersing test>

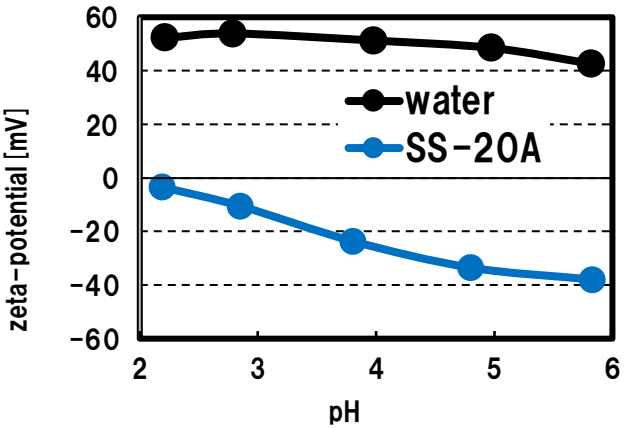
Powder : $TiO_2$ (50nm) : $BaCO_3$ (50nm)
1 : 1 (molar ratio)
Solvent : Ion-exchanged water
Powder concentration : 50wt%
Amount of additive : 2wt% (Relative to the powder weight)




(Reference item : Ammonium polyacrylate)

<Result of zeta-potential measurement>

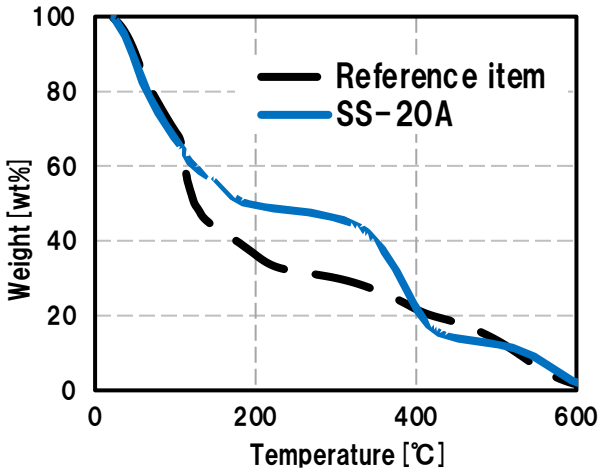
Powder : $Al_2O_3$ (200nm)
Solvent : Ion-exchanged water
Powder concentration : 0.1wt%
Amount of additive : 1wt% (Relative to the total amount)




## 5 Thermogravimetric analysis

<Under Air atmosphere>

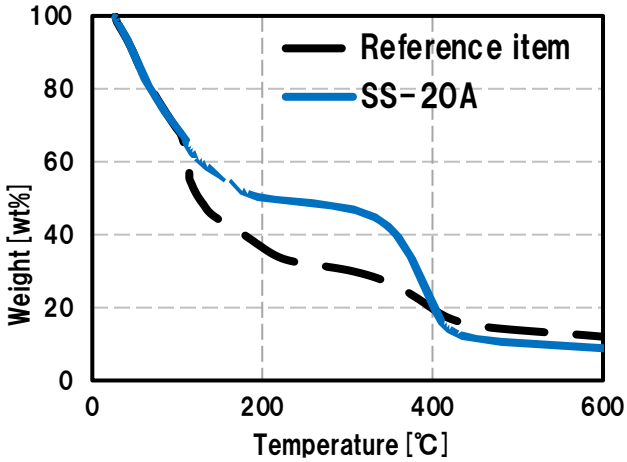
Flow rate: 75mL/min
Heating rate: 10℃/min




(Reference item : Ammonium polyacrylate)

<Under Nitrogen atmosphere>

Flow rate: 75mL/min
Heating rate: 10℃/min




(Reference item : Ammonium polyacrylate)

## 6 Cautions on handling

For more detail, Safety Data Sheet (SDS) in available.

## 7 Other information

This catalogue is made by NOF CORPORATION based on our best knowledge and all of listed data are reference only. (not guaranteed) We recommend to refer our SDS before using our products and special attention should be paid in handing because all chemicals have unknown hazard.

Please contact us when you have any other question.



**Head Office**
Yebisu Garden Place Tower, 20-3 Ebisu 4-chome, Shibuya-ku, Tokyo 150-6019
TEL.+81-3-5424-6694 https://www.nof.co.jp/