

Low temperature decomposition dispersant ESLEAM® SP-0201

1. Feature

- Is excellent at dispersing ultrafine particles of several tens of nanometres or less and is effective in preventing particle aggregation, lowering the dispersion system viscosity, performing stable dispersion, etc..
- Has a high concentration (100%) of active constituents and does not contain impurities such as alkali metals.
- Demonstrates excellent solubility for water and various solvents.
- Has excellent thermal decomposition properties, effecting thermal decomposition at approximately 300° C, which is a lower temperature than for conventional products, and leaving no residue.

2. Typical properties, solubility and regulatory information

Item		SP-0201
Properties *1	Appearance	Colorless, transparent liquid
	Viscosity (mm ² /s, at 25°C)	650
	Acid-base	Acidity
Solubility*2	Water	○
	Ethanol	○
	Methyl ethyl ketone (MEK)	○
	2- (2-Butoxyethoxy) ethyl acetate	○
	Terpineol	○
	Toluene	△
Regulatory Information*3	ENCS (Japan)	✓
	TSCA (USA)	—
	IECSC (China)	—
	ECL (Korea)	—*4
	TSCI (Taiwan)	—

*1 Representative values, not values of standard.

*2 ○:soluble, △:cloudy (also includes slightly cloudy), ×:insoluble (5 wt% solution at 25°C)

*3 ✓:On list, —:Not on list. Please ask us regarding the registration status of REACH for each product.

*4 Notification(<100kg/y). If exporting to Korea, please contact our sales representative as importers are limited.

3. Additive amount (suggested)

The recommended amount of additive for ESLEAM® SP-0201 is 0.5 to 20 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. Result of dispersing test

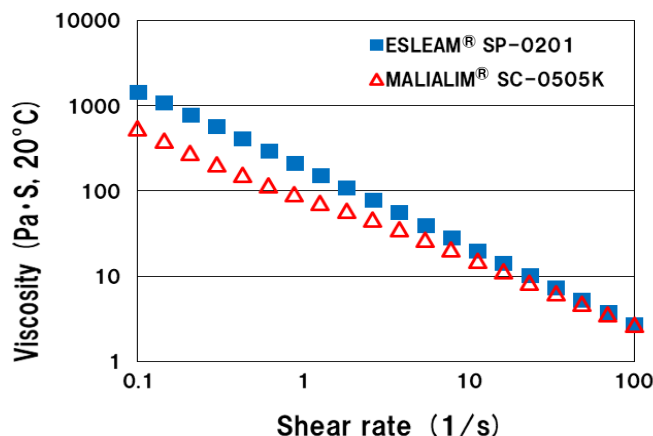
Powder : Titanium oxide

(average particle diameter: 50 nm or less)

Solvent : Ion-exchanged water

Powder concentration : 45wt%

Amount of additive : 15wt% (relative to the powder weight)



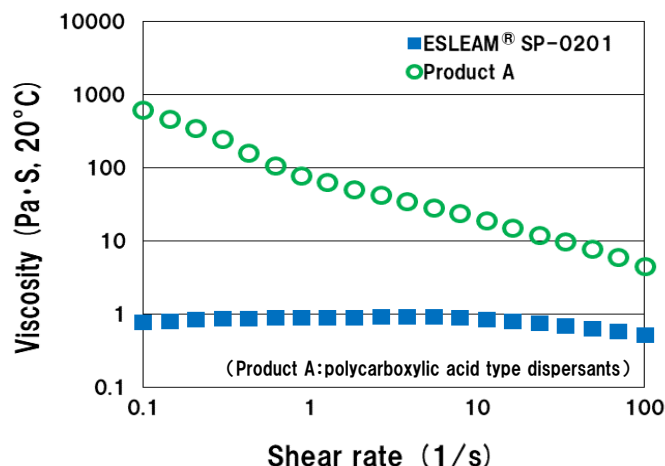
Powder : Calcium zirconate

(average particle diameter: approximately 50 nm)

Solvent : Toluene/ethanol=1/1 (weight ratio)

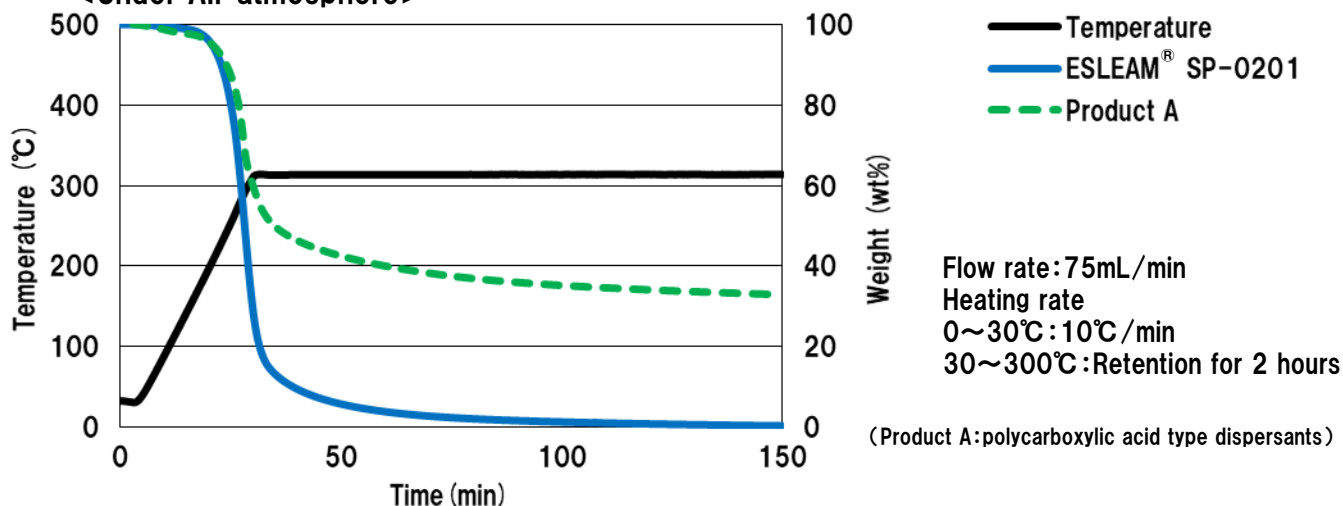
Powder concentration : 75wt%

Amount of additive : 5wt% (relative to the powder weight)



5. Thermogravimetric analysis

<Under Air atmosphere>



6. Handling Precautions

Check the latest product safety data sheet (SDS).

7. Other information

This catalog was produced based on our best-effort investigations, but the stated data and evaluation results are not necessarily guaranteed. All chemical substances present unknown hazards, so they must be handled with great care. Establish safe usage conditions based on the responsibility of each user.

In addition, for special handling, implement new safety measures suitable for the purpose and usage before use.

*If these or any other points are unclear, please contact one of our sales representatives.

*MALIALIM and ESLEAM are registered trademarks of NOF Corporation.

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