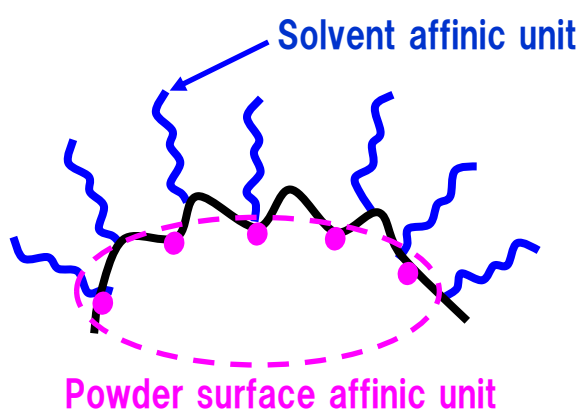


ESLEAM[®] AD Series

1 ESLEAM[®] AD Series

ESLEAM[®] AD Series are new functional polymers that have powder surface affinic unit and solvent affinic unit, which can be used as dispersant both for inorganic and organic powders.



Solvent affinic unit

It gives steric-repulsion effects or acts as segments improving dissolution.

Powder surface affinic unit

It acts as segments that adsorb on to the surface of powder.

Molecular structure of ESLEAM[®] AD Series (Image)

By optimizing the units, ESLEAM[®] AD Series show excellent dispersibility to particulates.

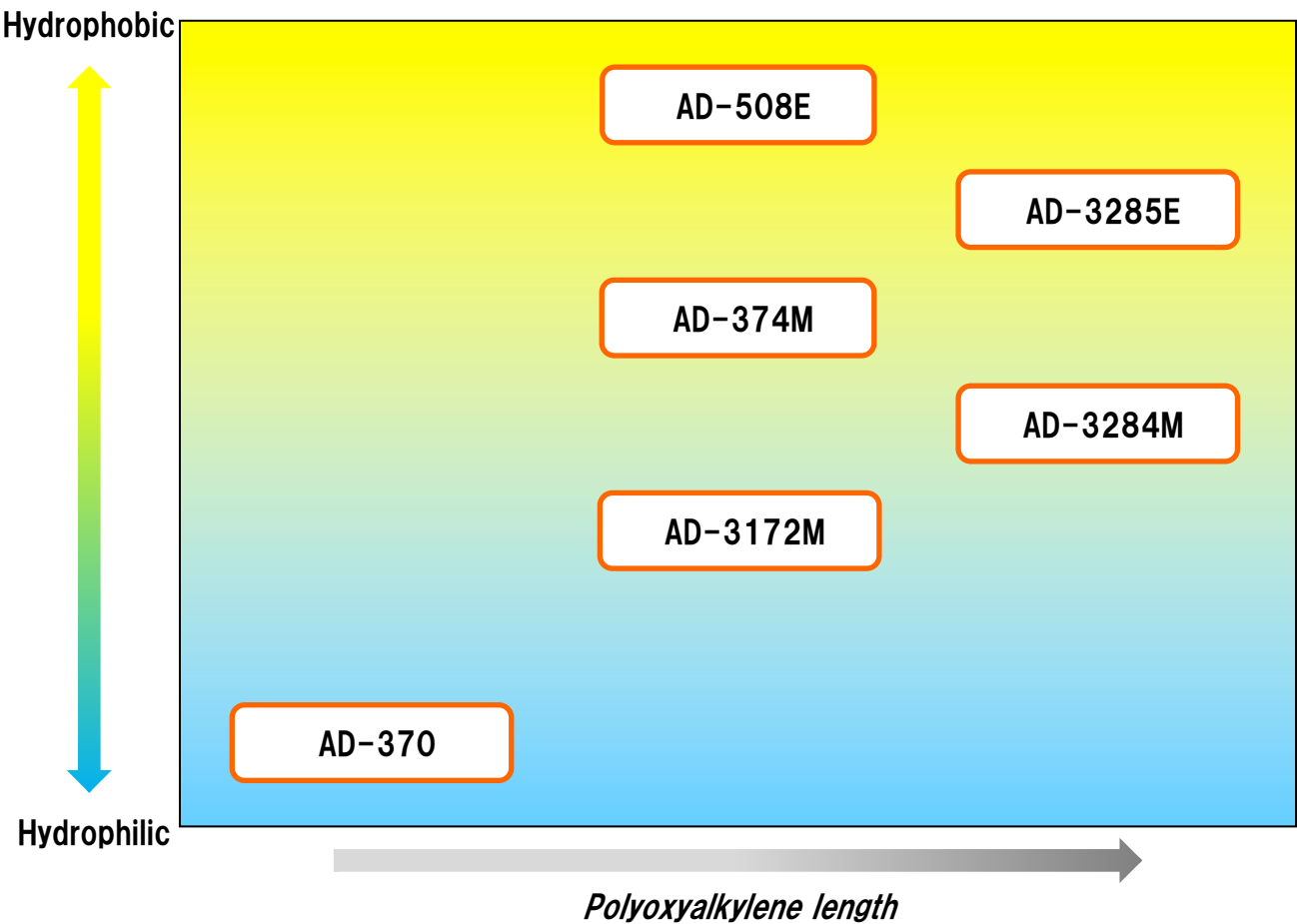
2 Features

- ◆ It prevents particulates from flocculation and reduces the viscosity of dispersion system.
- ◆ 100% active constituent and low viscosity, easy to handle.
- ◆ High solubility for various solvents.
- ◆ Thermal decomposition point at about 400°C under N₂ atmosphere.

3 Lineup

Product name	Appearance (at 25℃)	Acid-Base	Viscosity (mm ² /s, 25℃)	Solid content (%)
AD-3172M	Pale yellow or yellow liquid	Basic	600	100
AD-374M			500	
AD-508E (Make to order)			1,700	
AD-3284M (Make to order)			900	
AD-3285E (Developed product)			1,500	
AD-370 (Developed product)	Dark brown		600	

(Representative values, not values of standard.)



4 Solubility

Product name	Water	Ethanol	Butyl Carbitol	Turpineol	PGMEA*	Toluene
AD-3172M	○	○	○	○	○	○
AD-374M	△	○	○	○	○	○
AD-508E	×	○	○	○	○	○
AD-3284M	△	○	○	○	○	○
AD-3285E	×	○	○	○	○	○
AD-370	○	○	○	○	○	○

PGMEA: propylene glycol monomethyl ether acetate ○: soluble, △: emulsification, ×: insoluble
(5wt% solution, at 25° C)

5 Additive amount

The additive amount of ESLEAM® AD Series is normally from 0.5 to 5wt% (for powder weight) . As the optimal additive amount strongly depends on particle size or surface area of powder, we recommend some test using different amount of the product to determine the optimal additive amount.

6 Registration Status of Chemical Substances*1

Product name	ENCS (Japan)	TSCA (US)	IECSC (China)	ECL (Korea)	TSCI (Taiwan)
AD-3172M	✓	✓	✓	—*3	✓*5
AD-374M	✓	✓	✓	—*3	✓*5
AD-508E	✓	—	—*2	—*4	—*6
AD-3284M	✓	✓	✓	—*3	✓*5
AD-3285E	✓	—	—	—	—
AD-370	✓	✓	✓	✓*5	✓*5

*1 ✓: Listed, —: Not listed, Please inquire separately about REACH registration status.

*2 Application for preparation of a draft. If you export to China, please contact our sales representative as the exporter is limited.

*3 Polymers of low concern. If you export to Korea, please contact our sales representative as exporters are limited.

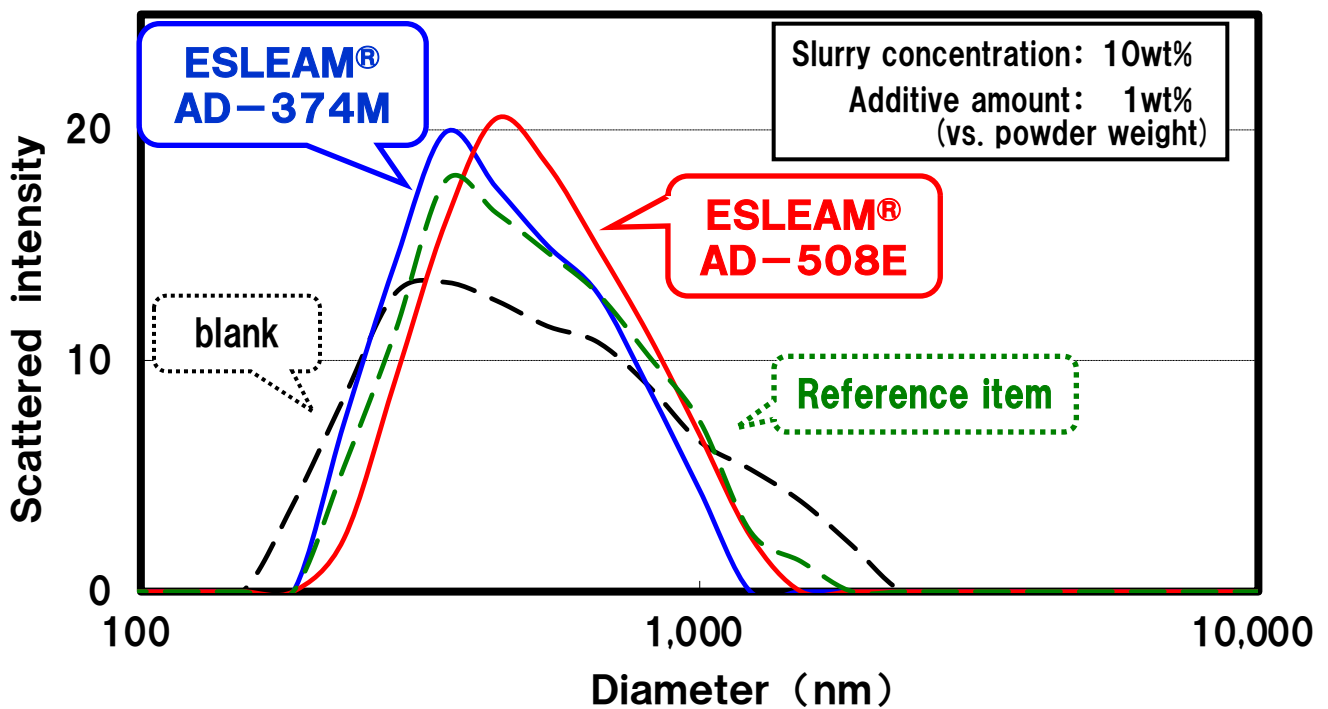
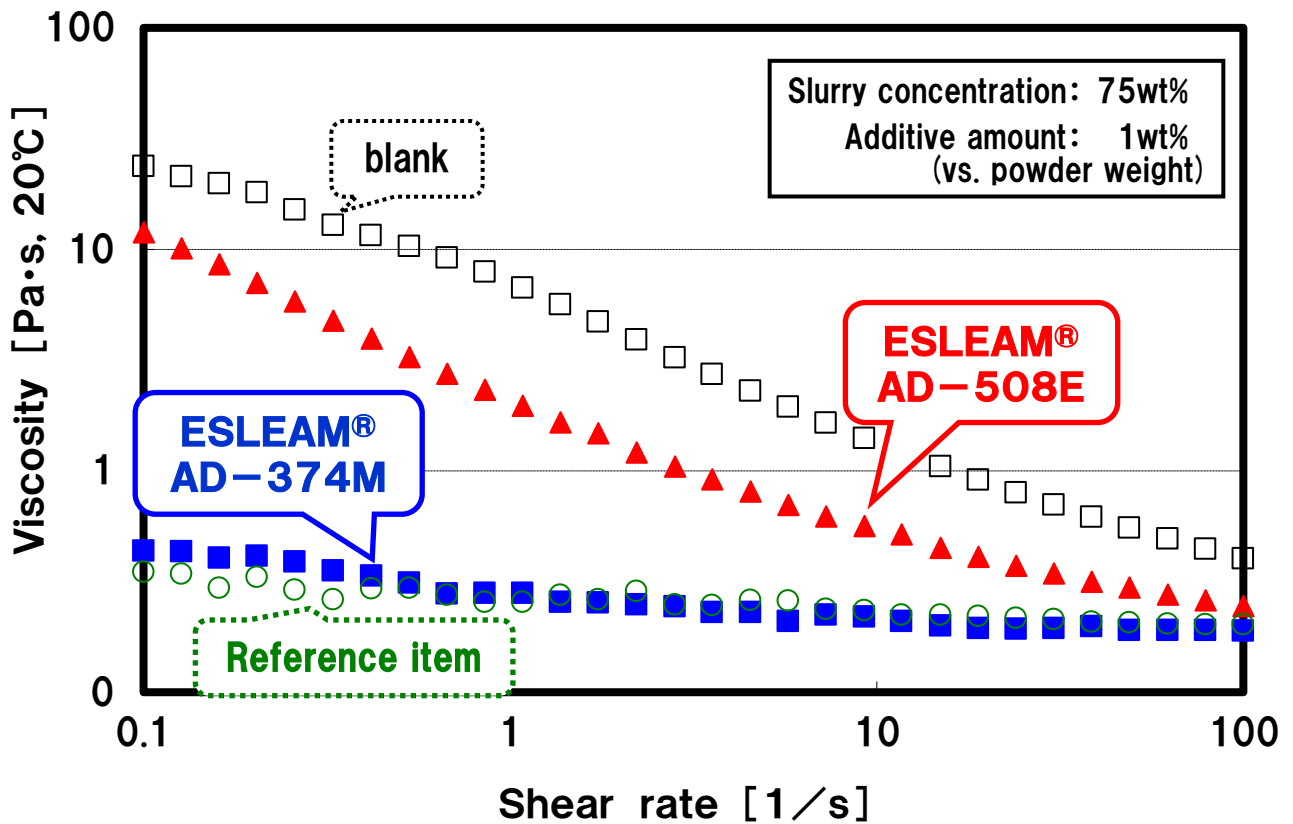
*4 Declaration of small quantity. In case of exporting to Korea, please contact our sales representative as exporters are limited.

*5 Declaration or registration is required depending on the quantity.

*6 Registration of small quantity. In case of exporting to Taiwan, please contact our sales representative as the exporters are limited.

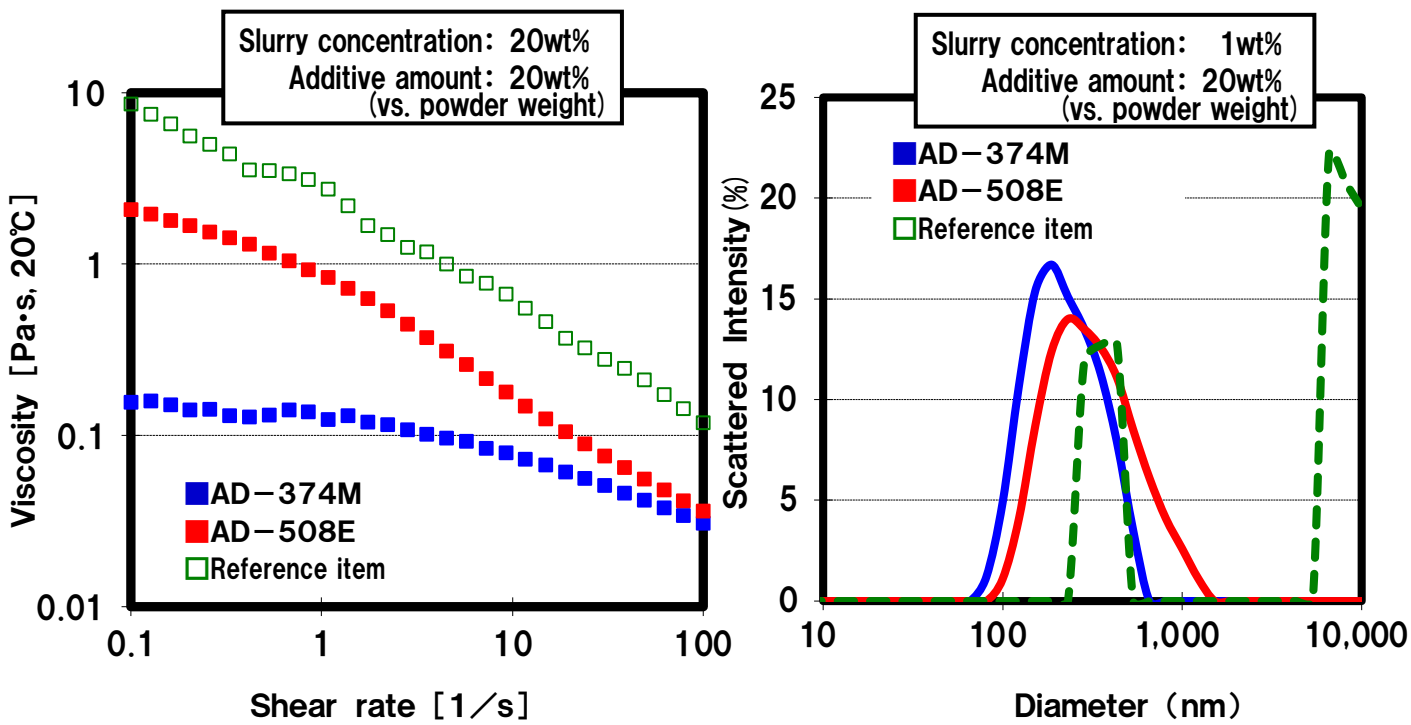
Powder: Ag (Particle size : $0.7\ \mu\text{m}$)

Solvent: Terpineol



Powder: Carbon black (Particle size : 24nm)

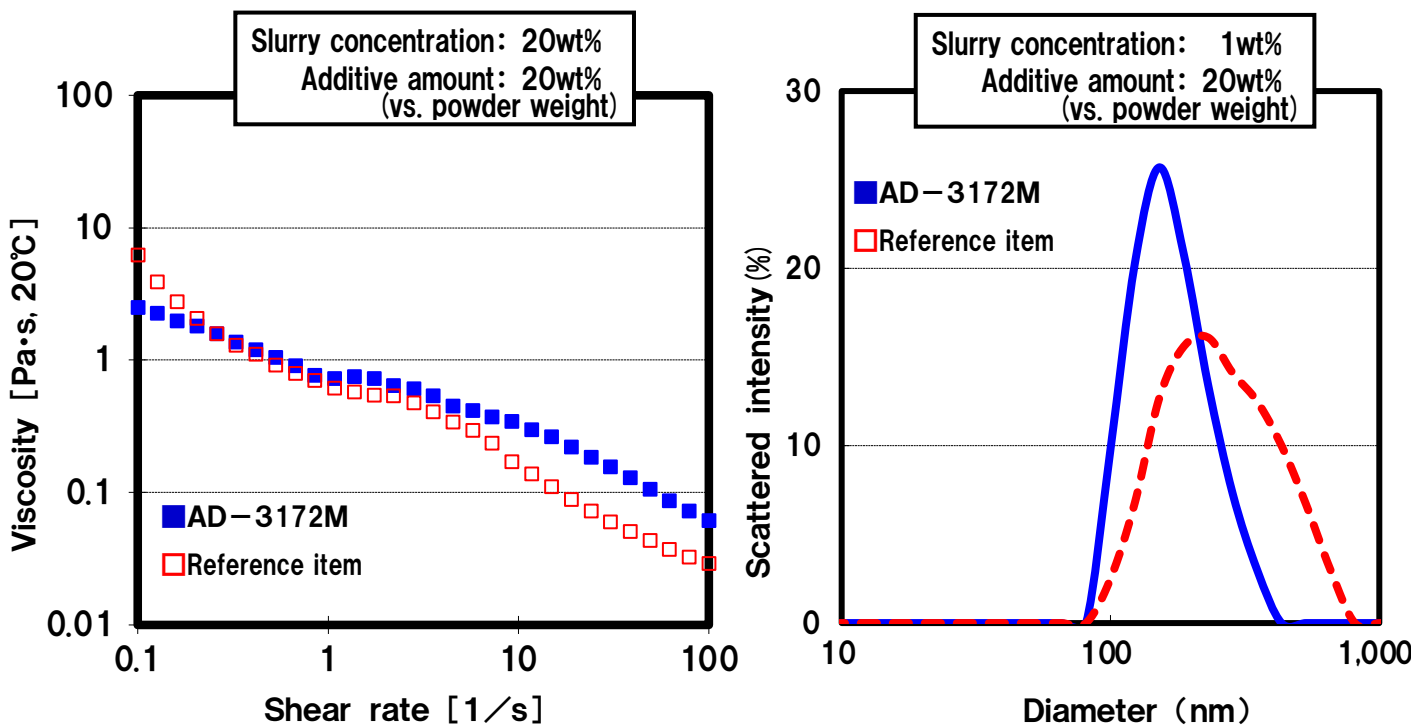
Solvent: Propyleneglycol monomethylether acetate (PGMEA)



(Reference item : N, N-dipolyoxyalkylene-N-alkylamine)

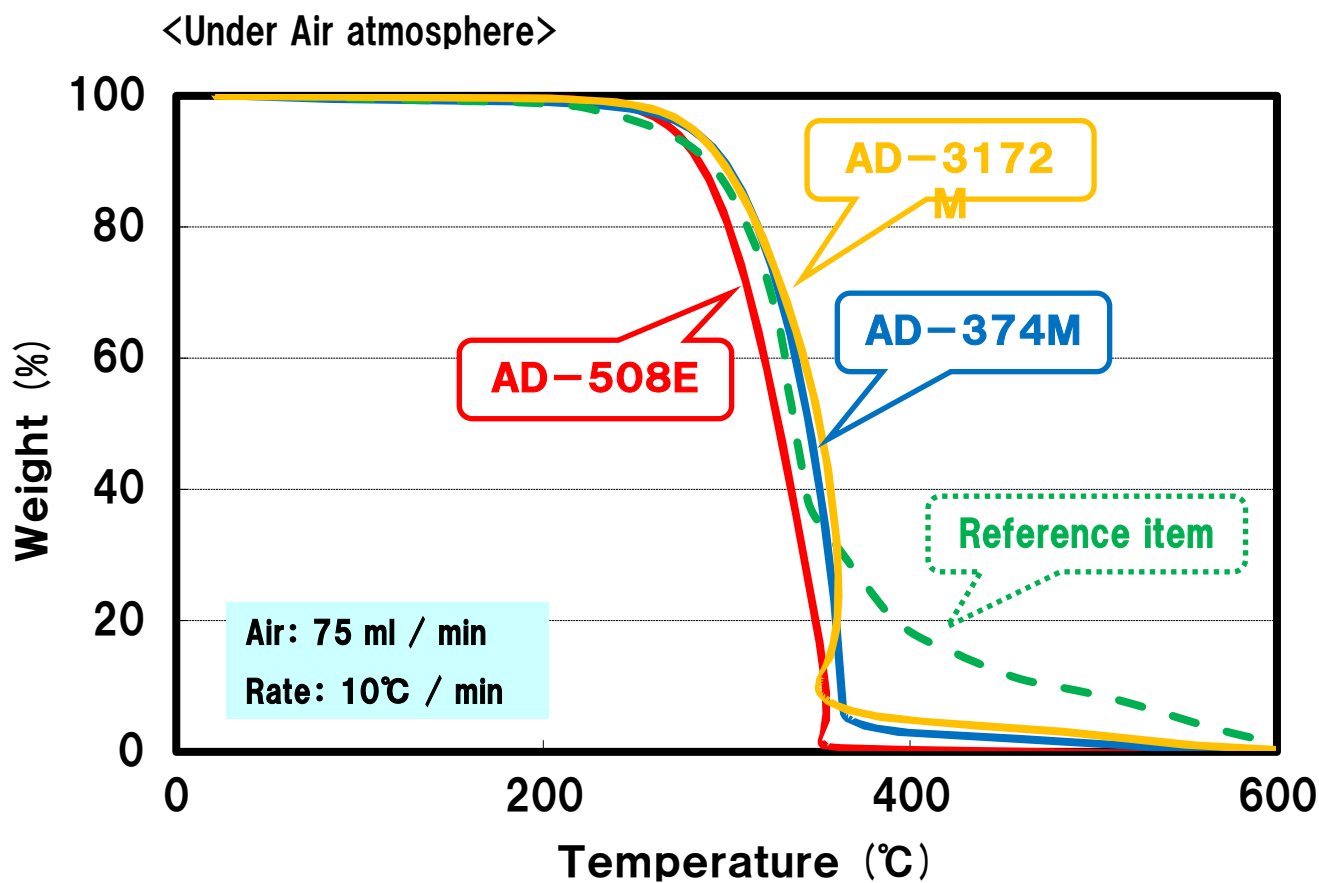
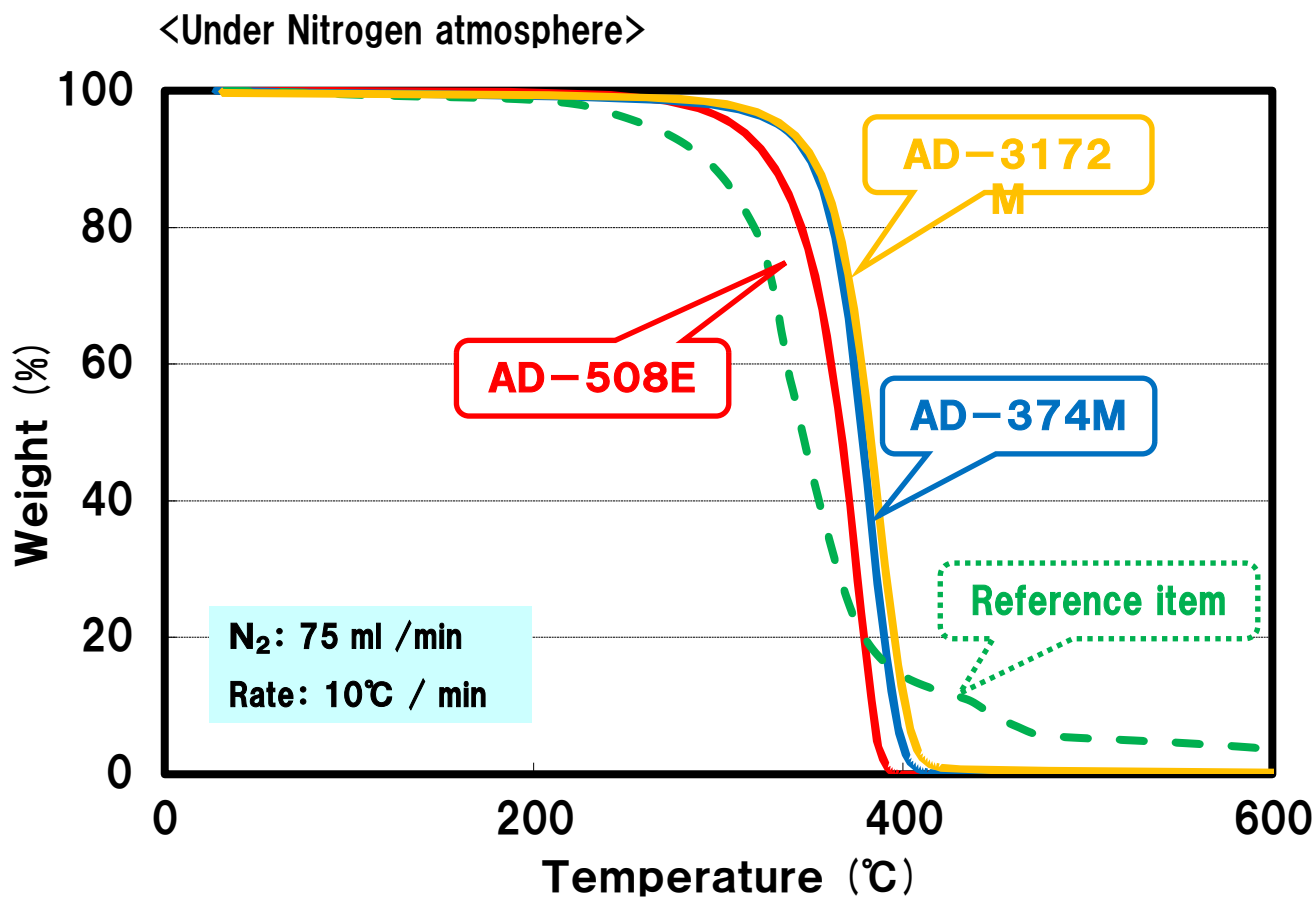
Powder: Carbon black (Particle size : 24nm)

Solvent: water



(Reference item : Polymer of ammonium salt)

8 Thermogravimetric analysis



9 Handling precautions

Please check the latest Material Safety Data Sheet (SDS).

10 Other

This catalogue is made based on our best investigation, but, about data and the evaluation result of mention, is not necessarily a thing to guarantee. Because there is unknown hazardousness to all chemical substances, scrupulous attention is necessary for the handling. On the responsibility of the user members, we hope that safe terms of use are set. In addition, please use safety measures suitable for a use when you do the special handling.

Please refer to our sales representative for other any questions.

***ESLEAM is a registered trademark of NOF CORPORATION.**



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