

Additives for coatings and printing inks

DISPARLON[®]

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DISPARLON[®] AQ-870

(Rheology control agent for water-borne system)

DISPARLON AQ-870 is a polyamide based rheology control agent for water-borne systems. A 3-D network structure is formed by interaction of AQ-870 with the coating vehicle; as a result it prevents sagging and pigment settling. AQ-870 is different from traditional water-borne thickening agents since it has strong pseudoplasticity. AQ-870 can be easily added into systems with a dissolver.

ADVANTAGES

- Easy incorporation
- Prevents hard caking by minimizing pigment settling
- Excellent humidity resistance
- Orientation of metallic and pearlescent pigments
- Highly shear thinning

TYPICAL PROPERTIES

Appearance	Light yellow liquid
Active component	Polyamide
Non-volatile	15%
Solvent	Water/ 2-ethylhexylalcohol
Acid value	9.1

INCORPORATION

- Post addition by dissolver is recommended. It can be added at any production stage but normally recommended at the final stage.
- It can be added at the temperature from 25°C to 50°C but recommended to add at less than 40°C
- General dosage is 1.0~6.0% on total weight of a paint.
- Room temperature storage is requested. Low temperature storage will increase its viscosity resulting in the formulation of a paste. Once it becomes inflowable, heating over 50°C regains flow property allowing further use.



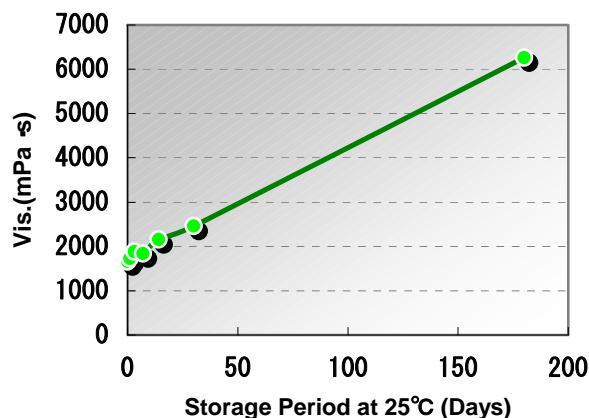
Kusumoto Chemicals, Ltd.

11-13, UCHIKANDA 1-CHOME, CHIYODA-KU, TOKYO JAPAN

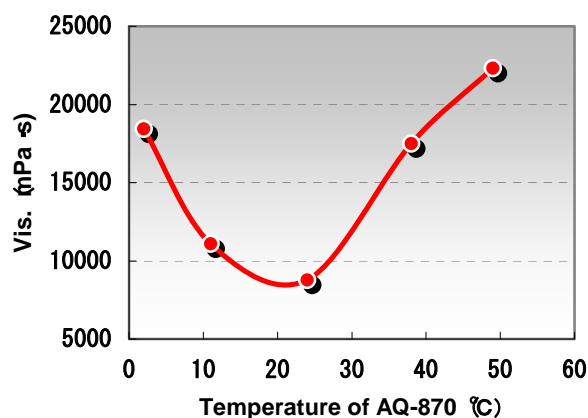
(TEL) 81-3-3292-8685 (FAX) 81-3-3295-6079

INSTRUCTIONProduct's Viscosity

Viscosity of DISPARLON AQ-870 gradually increases on storage. (Graph 1) DISPARLON AQ-870's viscosity depends on the temperature. For better handling, storage at around 25 degrees C is recommended. (Graph 2)



Graph 1



Graph 2

Flow Property

Low temperature storage at temperatures below 10°C may increase the viscosity of DISPARLON AQ-870 and reduce its flow properties will be lost causing it to become a paste. The paste may change paint properties and affect the formula.

Storage(days)	0	1	3	7	14	30
0 °C	1656	>10000	>10000	>10000	-	-
1 0 °C	1656	4190	4310	4750	5720	7620
2 0 °C	1656	2220	2300	2450	2670	3070

Viscosity was measured at the temperature by Brookfield Viscometer.

Flow able
 Not flow able (Paste)

Before Incorporation

In case DISPARLON AQ-870 becomes paste, please heat it to 50°C for 24 hours to re-liquefy. The DISPARLON AQ-870 can be added at high temperature after heating. However the viscosity of the DISPARLON AQ-870 is higher at high temperatures than at low temperatures.

Distributed by:
 King Industries
 Science Road, Norwalk CT 06852
 Ph: 203-866-5551


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