

ELEMENTIS

SPECIALTIES

One-stop Total Solution Provider
一站式整体解决方案的伙伴

Rheology leadership plus so much more...

Application Leaflet
January 2014

RHEOLATE[®] AP 425

*Hydrophobically Modified Acrylic Alkali Swellable
Rheological Additive*



Innovation • Compliance • High Performance



www.elementis-specialties-asia.com

GENERAL INFORMATION

RHEOLATE® AP 425 is a VOC-free, APE-free, low-odor and environment-friendly hydrophobically modified alkali swellable rheological additive designed to replace ordinary hydroxyethyl cellulosic and alkali swelling product (ASE) in the environment-friendly construction and variety of waterborne systems.

RHEOLATE® AP 425 rheological additive provides excellent mid- and high-shear viscosity and an excellent balance between sag resistance and leveling properties.

RHEOLATE® AP 425 provides more excellent anti-syneresis, spattering resistance and flow properties compared to ordinary hydroxyethyl cellulosic and ASE.

PHYSICAL PROPERTIES

Composition	proprietary acrylic emulsion in water
Appearance	milky white liquid
Density	1.040 - 1.090 kg/l (25°C)
Viscosity	≤ 20 cP (25°C)
Non-volatile content	28 - 32 %
pH value	1.5 - 3.5

APPLICATION

- * Waterborne construction
- * Waterborne industrial coatings
- * Waterborne adhesives
- * Waterborne inks

KEY PROPERTIES

- * VOC-free and APEO-free.
- * provides mid-shear viscosity efficiently
- * excellent spattering resistance properties
- * provides excellent sag resistance and anti-setting properties
- * enhances obviously leveling performance for latex paint during roller or brush application

INCORPORATION

- * In most cases, RHEOLATE® AP 425 can be added without dilution or pre-neutralization. It is most commonly post-added to coatings, but a portion can be incorporated into the millbase if desired. Before adding RHEOLATE® AP 425, dilution with water is recommended.
- * RHEOLATE® AP 425 is an alkali swellable thickener and requires proper pH adjustment, for example, with ammonia or amino methyl propanol for complete activation. NaOH, KOH or Tetra Potassium Pyro Phosphate are alternatives for environment-friendly coating systems. In a typical latex paint, a pH of at least 8.0 is recommended.

LEVELS OF USE

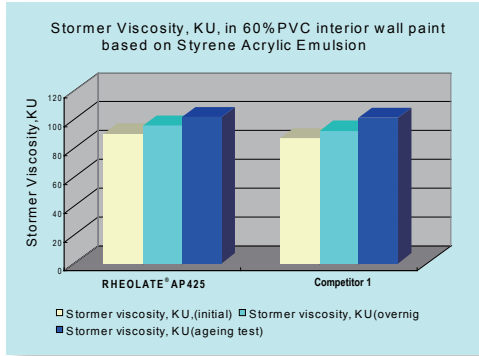
The typical use levels for RHEOLATE® AP 425 are 0.3 to 1.0 % (as delivered) by weight in waterborne paints or inks and higher dosage required in waterborne adhesives or sealants. Actual dosage will depend on formulation.



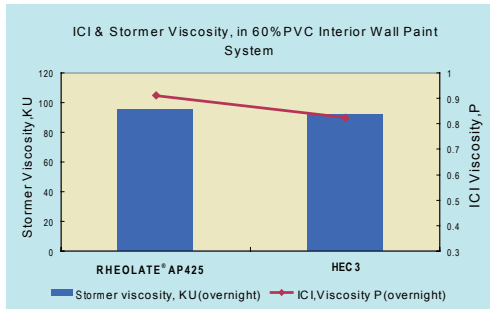
RHEOLATE® AP 425 PROPERTIES

1) 60 % PVC interior wall paint, styrene acrylic emulsion system

A. Excellent Stormer viscosity and storage stability



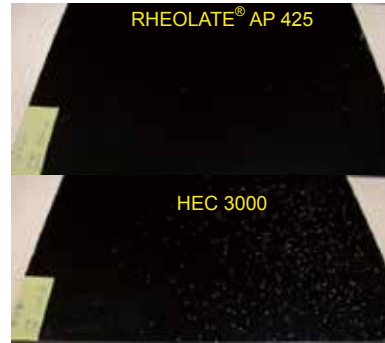
B. Higher ICI viscosity



C. Excellent syneresis resistance properties after stored at 50°C for two weeks

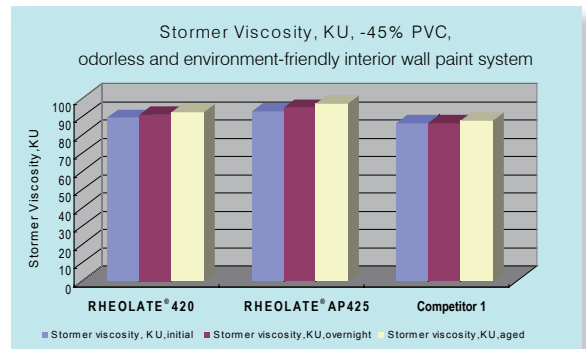


D. Excellent spattering resistance properties

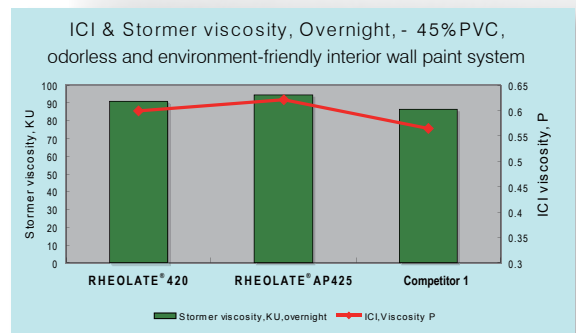


2) Low VOC and odorless interior wall paint based on VAE emulsion

A. Excellent thickening efficiency and excellent storage stability



B. Higher ICI viscosity

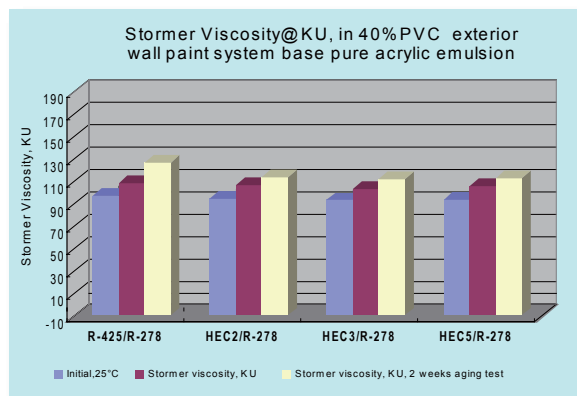


C. Excellent color acceptance

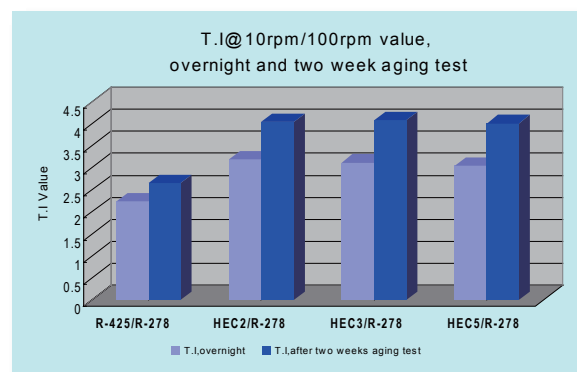


3) 40 % PVC exterior wall paint, pure acrylic emulsion system

A. Excellent thickening efficiency



B. Excellent flow property



RHEOLATE® is a registered trademarks of Elementis Specialties.

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Elementis Specialties

Asia Head Office China

Deuchem (Shanghai) Chemical Co., Ltd.
99, Lianyang Road,
Songjiang Industrial Zone,
Shanghai, China 201613
Tel.: +86 21 57740348
Fax.: +86 21 57743563

Taiwan

Deuchem Co., Ltd.
92, Kuang-Fu North Road,
Hsinchu Industrial Park,
Hukou, Hsinchu, Taiwan
Tel.: +886 3 5984035
Fax.: +886 3 5983301

Malaysia

Elementis S.E.A. (Malaysia) Sdn. Bhd.
(1095769-X)
62-1, Jalan Tasik Utama 5,
Medan Niaga Tasik Damai,
Sungei Besi, 57000 Kuala Lumpur,
Wilayah Persekutuan, Malaysia
Tel.: +603-9054 6690
Fax: +603-9054 6698

India

Elementis Specialties (India) Pvt. Ltd.
Unit B, Ground Floor,
Jaswanti Landmark,
Mehra Industrial Estate,
L.B.S Marg, Vikhroli (West),
Mumbai 400 079, India
Tel: + 91 22 67421251
Fax: + 91 22 67421252