

RHEOLATE® FX 1100

Powdered Thickening Agent - Polyether Urea Polyurethane-Based 100 % Solids Associative Rheology Modifier for Latex Paints and Other Water-Borne Systems

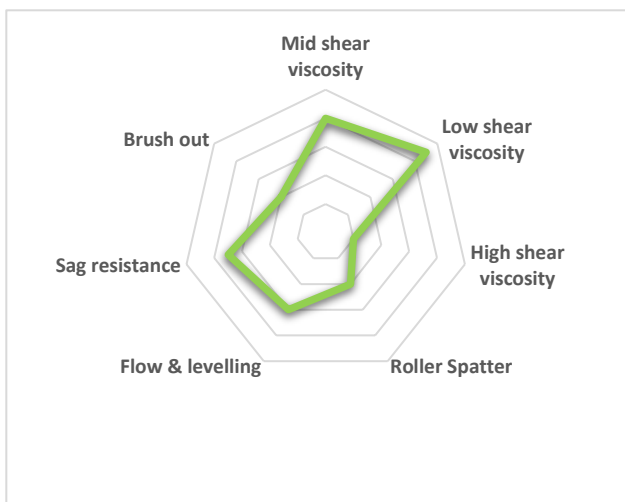
GENERAL INFORMATION

RHEOLATE FX 1100 is a high efficiency polyether polyurethane thickener developed for use in aqueous systems. The product is supplied as a white free-flowing powder and enables formulations of odourless paints free of organic solvent.

Furthermore, it is free of APEO and biocide and allow to develop sustainable solutions in coatings and adhesives. The product is suitable for anti-asthma and anti-allergy paints.

It is part of the powder thickener family and due to its rheological low shear character a perfect partner for RHEOLATE PHX 7025.

RHEOLATE FX1100 provides benefits additional to those of its liquid counterpart **RHEOLATE FX 1010**.



CHEMICAL & PHYSICAL PROPERTIES

Appearance 20 °C	white, finely divided powder
Active content	99 - 100 %
Density (bulk) 20 °C (ISO 2811-2)	0.525 – 0.575 g/cm ³
Solubility	soluble in water and water/glycol mixtures
Composition	hydrophobic urethane polymer
Melting point	53 - 63 °C
Non-volatile content	100 %

These are typical properties not to be used for specification purposes.

APPLICATIONS

- Thickener for sustainable aqueous coatings / adhesives
- High quality, low VOC latex paints of all sheen levels
- High-gloss interior and exterior latex paints
- Semi-gloss interior and exterior latex paints
- Waterborne alkyd paints
- Other latex systems requiring high film build and improved flow and leveling
- Inks
- Adhesives
- Textile coatings

KEY PROPERTIES

100 % solids powder

- APEO-, VOC-, tin-, biocide free
- contains no coalescing solvent
- offers greater manufacturing flexibility
- reduces formulation interaction
- easily stored
- non-freezing

Excellent rheology

- Pseudoplastic rheological profile contributing to low- and mid-shear
- Can be use as stand-alone thickener in formulations

Excellent paint performance

- bio-stable
- develops pH-independent rheology
- Sagging
- Edge covering
- Water resistance

Compatibility

- pigment dispersing agents NUOSPERSE FX 504 and NUOSPERSE FX 605.
- Cellulosic thickeners (after paint stability control)
- Pure aqueous systems
- Aqueous systems with glycols, glycol derivatives and various coalescing agents
- allows broad formulating flexibility

continued...

RHEOLATE® FX 1100

INCORPORATION

Usually, **RHEOLATE FX 1100** is added as an aqueous pre-gel or is added directly to the milling paste prior to the addition of the pigments and extenders. However, in some cases it will be possible to add **RHEOLATE FX 1100** as a powder under careful mixing.

In formulations where it is added as a dry powder, **RHEOLATE FX 1100** is just mixed with the various other components. This procedure enables the formulation of coatings with high solids contents.

RHEOLATE FX 1100 dissolves quickly in water or in water/organic solvent mixtures.

We suggest the following pre-gel:

97% water

3% **RHEOLATE FX 1100**

(Add **RHEOLATE FX 1100** carefully under mixing)

100% **RHEOLATE FX 1100**-gellingredients.

The viscosity of the aqueous solution increases rapidly with concentration.

LEVELS OF USE

In dispersion paints a concentration between 0.2 and 1.0 % **RHEOLATE FX 1100** will generally be sufficient when used as the sole thickening agent. However, it is recommended to determine the optimum dosage for each case individually.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

STORAGE RECOMMENDATIONS

It is recommended to store **RHEOLATE FX1100** in dry conditions. Although internal tests have shown that powder thickener are less sensitive storing temperature, we recommend to store preferably temperatures in the range of 4°C (40°F) to 35 °C (95°F). In the event of accidental freezing, it has to be considered that incorporation time is prolonged. Pretesting in the lab is recommended.

Store away from excessive heat or open flame. Keep container closed when not in use.

SHELF LIFE

RHEOLATE FX 1100 has a shelf life of 3 (three) years from date of manufacture and when stored in unopened packaging.

QUALITY ASSURANCE

Quality system at the site manufacturing this product complies with and is certified to ISO 9001 quality standards stipulated standards.

NOTE: The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchasers will be subject to a separate agreement which will not incorporate this document.

© Copyright 2023, Elementis Specialties, Inc. All rights reserved. Copying and/or downloading of this document or information therein for republication is not allowed unless prior written agreement is obtained from Elementis Specialties, Inc.

© Trademark of Elementis Specialties, Inc.

V02 Mar. 2023

North America

Elementis
469 Old Trenton Road
East Windsor
NJ 08512, USA
Tel.: +1 609 443 2500
Fax: +1 609 443 2422

Europe

Elementis UK Ltd.
c/o Elementis GmbH
Stolberger Strasse 370
50933 Cologne, Germany
Tel.: +49 221 2923 2066
Fax: +49 221 2923 2011

Asia

Deuchem (Shanghai) Chemical Co., Ltd.
99, Lianyang Road
Songjiang Industrial Zone
Shanghai, China 201613
Tel.: +86 21 5774 0348
Fax: +86 21 5774 3563