

Efka[®] RM 1900



general

rheology modifier for solvent based systems

- thickening agent in micronized form for non-aqueous coatings
- produces very strong thixotropic effects in solvent based coatings particularly recommended for use in paint manufacturing processes involving relatively high working temperatures

chemical nature

modified hydrogenated castor oil

Properties

physical form

white, microfine powder

storage

Efka[®] RM 1900 should be stored in a cool dry place.

typical properties (no supply specification)

solid content	~ 100%
particle size distribution	5 - 9 µm, 99% < 32 µm, 100% < 44 µm

Application

Efka[®] RM 1900 is an excellent rheology modifier for solvent based and solvent-free systems such as epoxy resin paints, plastisols, caulking compounds, putties and knifing fillers.

The advantage of Efka[®] RM 1900 is that it tolerates relatively high working temperatures which are particularly evident wherever the solvent mixture consists mainly of white spirit.

The type of solvent is of decisive importance to the thixotropic behavior of Efka[®] RM 1900. The solvents should mainly consist of mineral spirits and aromatics. A combination with esters, ketones and alcohols is possible up to certain limits.

Efka[®] RM 1900 shows optimum temperature stability in coatings based on air-drying alkyd resins. However, temperature stability is somewhat lower in systems formulated mainly with aromatic hydrocarbons, such as paints based on chlorinated rubber, polyvinyl copolymers, chlorinated polyethylene, etc.

recommended concentrations

Efka® RM 1900 is preferably processed in high speed grinders. The addition is usually made in powder form, where it is beneficial to predisperse the thickener for approximately five minutes in the solvent-binder mixture, prior to pigment addition.

It is essential that:

- certain temperature limits are kept
- stirring alone is not sufficient to achieve adequate homogenization, even if the thickener is added in a pre-gelled form. sufficient shear forces are used to ensure adequate dispersion

Simple The shear forces generated in dissolvers, pearl mills or similar grinding equipment, are usually sufficient to obtain the degree of dispersion required.

When using Efka® RM 1900 in white spirit based paints, a working temperature of 50 - 60 °C is required. In conjunction with adequate shear, these paints - especially alkyd resin paints - develop an excellent thixotropy within these temperature limits. Short-time exposure to temperatures of approx. 80 - 90 °C will not cause a negative effect. In systems formulated with Efka® RM 1900, containing aromatic hydrocarbons such as chlorinated rubber paints, the optimum temperature range is lower, e.g. in the region of 40- 60 °C. Short-time exposure to a temperature of approx. 80 °C will not cause any negative effect. These properties may vary in individual paint systems and should be tested by the user.

recommended concentrations

Although Efka® RM 1900 should preferably be used as a powder, it may also be processed in the form of a prepared gel. The use of these so-called «pre-gels» can facilitate the dispersion process, but still requires high shear to be applied, as well as the above mentioned temperature limits have to be observed.

A workable pre-gel was obtained by the following method: One part by weight of Efka® RM 1900 and three parts by weight of xylene (or other higher aromatic solvents) are stirred intensively until a thick paste is obtained. After adding further four parts by weight of xylene, intensive stirring is continued for approximately 10 minutes.

After a maturing time of approx. 12 hours a transparent and homogeneous paste has developed which is also stable after prolonged storage.

Usual dosages of this «pre-gel» are between 0.2 and 2.0%, based on the finished paint. The correct amount depends on the desired thickening effect and the general requirements for the coating.

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Validity

This Technical Data Sheet is valid for all versions of the Efka® RM 1900.

Safety

When handling these products, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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