

Efka[®] RM 1400

(old: Rilanit[®] R4)



Use

RILANIT[®] R 4 is a liquid additive which, when stirred into solvent-type air-drying paint systems, will produce a stable thixotropic viscosity increase. This offers a number of advantages such as

- sag control
- bodying
- flow control
- reduction of pigment settling, flooding and floating.

Composition

RILANIT[®] R 4 is an anionic vegetable oil derivative.

Specification

Appearance (8000)	viscous brownish liquid
pH value (10%) (8228, UNE-EN 1262)	7.5 - 8.5
Active substance (8625)	78 - 82%
Brookfield viscosity (RVT, sp-3, 20 rpm, 20 °C, 8032, EN 1791)	1.000 - 3.000 mPa·s

Properties

RILANIT[®] R 4 is a thickening agent, the performance of which is subject to the presence of pigments. Its special advantage as a liquid thixotropic agent is that, by simply stirring it in, it may be incorporated at any production stage of the paint, including the finished product. Therefore, RILANIT[®] R 4 is predominantly used as a «post-additive». The resulting thixotropy allows a more precise control of flow and sagging properties as well as reducing pigment settling.

Application

RILANIT® R 4 is used exclusively in pigment coatings based on binders air-drying by oxidation, such as alkyd resins and drying oils. RILANIT® R 4 gives good performance in systems not having an extremely low viscosity and with a pigment volume concentration of above 25 - 30%. It cannot be used in paints containing metallic pigments.

Although the presence of active pigments, calcium or zinc soaps, to activate the performance of RILANIT® R 4, is not required, the addition of such products may increase the effect of the additive.

Dosage

As already mentioned above RILANIT® R 4 may be added during any stage of production of pigmented coatings; however, the following methods are suggested:

- **Post-additive to the finished paint:** If a subsequent correction of the flow properties is desired, RILANIT® R 4 may be incorporated into the paint by stirring. A stable viscosity increase will result after a few hours.
- **Grinding aid:** RILANIT® R 4 may be added to the mill base if, besides the advantages resulting from thixotropy, better pigment dispersion is desired. This method is also recommended if, because of strong pigment settling, good suspension properties as well as «bodying» are required.

If this method is used, pigment floating and flooding may also be reduced. When grinding RILANIT® R 4 together with the pigments, full thixotropy will develop within approximately 12 hours.

Given the same pigmentation, the performance of RILANIT® R 4 is about proportional to the amount added. The quantity required is usually between 0.25 - 1.0%, calculated on finished paint.

Besides paint type and composition, the level of pigmentation is the most decisive factor in selecting the correct dosage of RILANIT® R 4. With rising pigment-volume concentrations, equal amounts of RILANIT® R 4 will cause an increase in thickening. Considering the large number of possible variations of paint formulations, RILANIT R 4 should first be tested under laboratory conditions.

If RILANIT® R 4 is intended for use in coatings with high performance requirements regarding drying, yellowing and anti-corrosive properties, its suitability should be confirmed by laboratory evaluations, particularly if it is necessary to use a large amount of this additive.

Regulatory Status

TSCA, EINECS, DSL/NDL, PICCS, AICS, ECL, ENCS/MITI, ECS

Miscellaneous

Avoid to store the product at temperatures below 0°C.

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

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