



**rowis**  
system

# **Foam Control Additives for water based systems**

## About Rowis-System

Rowis System is the Polish company specializes in production of the chemical supportive agents assigned for industrial recipients. The company headquarter, production plant and laboratory are located on the south of Poland in Będzin.

Our main activity is production of **defoaming and antifoaming agents** which can be used during the most chemical processes when foam creation is undesirable. Our products are based on many-year experience and own, original formulations.

We have our, suitably equipment laboratory, where are led project work over new products.

In order to adjust the whole production cycle to international standards in 2003 we obtained The Certificate of The Quality management system ISO 9001.

In wide range of the products we offer **foam control additives for water based systems** under trade name **ROMIS** and **ROMENT** for:

- **Coating industry (paint, varnishes)**
- **Building materials (plasters, adhesives, concrete, mortars)**
- Potato and starch industry
- Chips and french fry production
- Sugar industry (diffusion and extraction processes)
- Detergents, cleaner, textile dyeing
- Pulp and paper production
- Waste water treatment plants
- Geological drilling fluid
- Wood processing

## Why agents by ROWIS SYSTEM?

- We are specialists in the subject of the Foam Control Additives,
- We produce the Foam Control Additives for many different application in chemical industry,
- We develop our products in close cooperation with our customers,
- Our preparations are original solutions developed by efforts of our staff with use of many years' experience,
- We meet ecological requirements – we do not apply APEO derivatives of phenols in our production process.

We help in the product selection – we choose the best defoamer for our customer in our laboratory and we adapt it to his specific requirements (quality, price etc.) We offer our products in competitive prices.

# Foam control additives – introduction

## *What is a foam control agent?*

Mixture of active ingredients acting in synergy with each other, added in small amount during manufacture of a product, in order to prevent formation or to remove a foam.

## *Foam control additives – division*

- Antifoamers – act against foam formation (added before formation of foam).
- Defoamers – remove/eliminate foam already formed
- Deaerators – destabilize microfoam in liquid phase and transfer them to the surface.

**Mineral oil defoamers** – composed of approx. 80 – 90 % mineral oil as a carrier and 15% active ingredients, emulsifiers, biocide. Recommended primarily for usage in flat and semigloss dispersion paints and plasters.

**Silicone defoamers** – composed of dimethylpolysiloxanes and/or polyether-modified dimethylpolysiloxanes and optionally hydrophobic particles, water, emulsifiers, biocide. Recommended primarily for usage in premium coatings formulations as high gloss paints and varnishes.

**Polymeric defoamers, silicone and mineral oil free** – composed of special polymers and copolymers with hydrophobic and hydrophilic properties and optionally hydrophobic particles. Recommended for those systems where mineral oil and silicone based defoamers are not appropriate.

## *Problems caused by foam control additives*

- Separation on the surface of the product. During storage defoamer can come up to the surface of the product in form of fatty stains (which takes place e.g. in undercoating dispersions).
- Surface defects (eyes, craters, orange peel) appear most often in high-gloss varnish coating and are the effect of wrong selection of defoaming agent with too high incompatibility with a system.
- Coating becoming haze. Most often caused by application of defoamer based on mineral oils in the high-gloss system.



# Foam control additives – testing methods

## 1. Antifoaming and defoaming efficiency:

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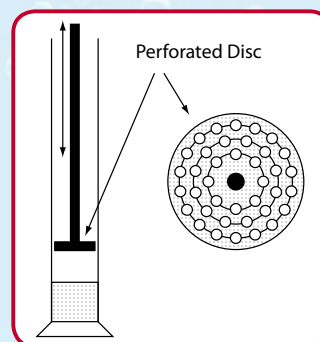
Stirring with a dissolver



Introduction of air via pump



Incorporation of air via the back and forth movements of a perforated disc



Source: P. R. Garrett, Defoaming: Theory and industrial Applications, Vol. 45, Surfactant Science series, Marcel Dekker, Inc., New York, NY, 1993

## 2. Application testing

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Application on different substrate (glass plate, cement and gypsum boards, wood, metal)  
– compatibility tests



Rolling with an open-pore roller  
– micro and makrofoam evaluation

# Foam Control Agents for Aqueous Systems

## – Coating selection Guide

| Product name         | Chemical basis  | Appearance   | Dosage (%) | Dispersion paints | Dispersion plasters | Mosaic plasters | Dispersion adhesives | Bonding agents, stains | Gloss emulsion paints | Pigment concentrates | polymerization | Printing inks | Dry blends, cement based |
|----------------------|---|--------------|------------|-------------------|---------------------|-----------------|----------------------|------------------------|-----------------------|----------------------|----------------|---------------|--------------------------|
| <b>Romis MP10/BS</b> | Mixture of polymers and copolymers in mineral oil. Silicone free. APEO and VOC free.    | Liquid       | 0,05-0,2   | ■                 | ■                   | ■               | ■                    | ▼                      | ■                     | ▼                    | ■              | ■             |                          |
| <b>Romis 103</b>     | Mixture of polymers and copolymers in mineral oil. Silicone free. APEO free.            | Liquid       | 0,05-0,2   | ■                 | ■                   | ▼               | ■                    |                        | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis 109</b>     | Polymer in mineral oil. Silicone free. APEO and VOC free.                               | Liquid       | 0,05-0,2   | ■                 | ■                   | ▼               | ■                    |                        | ▼                     | ▼                    | ▼              |               |                          |
| <b>Romis 111</b>     | Copolymer in mineral oil. Silicone free. APEO and VOC free.                             | Liquid       | 0,05-0,3   | ■                 | ■                   | ▼               | ■                    |                        | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis 116</b>     | Copolymer, silicone and mineral oil free. APEO and VOC free.                            | Liquid       | 0,05-0,3   | ■                 | ▼                   | ■               | ■                    | ■                      | ■                     | ■                    | ■              | ■             |                          |
| <b>Romis 118</b>     | Copolymers in mineral oil. Silicone free. APEO and VOC free.                            | Liquid       | 0,05-0,3   | ■                 | ■                   | ■               | ■                    |                        | ▼                     | ■                    | ■              | ■             |                          |
| <b>Romis N-10</b>    | Mixture of copolymers in mineral oil. Silicone free. APEO and VOC free.                 | Liquid       | 0,05-0,2   | ▼                 | ■                   | ▼               | ▼                    | ▼                      | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis FA-245</b>  | Multifunctional mixture of active ingredients and silicone. APEO and VOC free.          | o/w emulsion | 0,1-0,3    | ■                 | ▼                   | ■               | ■                    | ▼                      | ■                     | ▼                    | ■              |               |                          |
| <b>Romis FA-275</b>  | Multifunctional mixture of active ingredients and modified silicone. APEO and VOC free. | o/w emulsion | 0,1-0,3    | ■                 | ▼                   | ■               | ■                    | ▼                      | ■                     | ▼                    | ■              |               |                          |
| <b>Romis FA-285</b>  | Multifunctional mixture of active ingredients and modified silicone. APEO and VOC free. | o/w emulsion | 0,1-0,3    | ■                 | ▼                   | ■               | ■                    | ▼                      | ▼                     | ▼                    | ▼              |               |                          |
| <b>Romis FA-295</b>  | Multifunctional mixture of active ingredients and modified silicone. APEO and VOC free. | o/w emulsion | 0,1-0,3    | ■                 | ▼                   | ■               | ■                    | ▼                      | ▼                     | ▼                    | ▼              |               |                          |
| <b>Romis FA-310</b>  | Polymer in mineral oil. Silicone free. APEO and VOC free.                               | w/o emulsion | 0,1-0,3    | ■                 | ■                   | ▼               | ■                    |                        | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis FA-400</b>  | Multifunctional mixture of active ingredients and modified silicone. APEO and VOC free. | o/w emulsion | 0,1-0,3    | ■                 | ▼                   | ▼               | ■                    | ■                      | ▼                     | ▼                    | ▼              |               |                          |
| <b>Romis T-212</b>   | Multifunctional mixture of active ingredients. Silicone free. APEO and VOC free.        | o/w emulsion | 0,05-0,3   | ■                 | ▼                   | ■               | ■                    | ▼                      | ■                     | ▼                    | ■              |               |                          |
| <b>Romis T-214</b>   | Silica in mineral oil. APEO and VOC free.   | w/o emulsion | 0,1-0,3    | ■                 | ■                   | ▼               | ■                    |                        | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis G-210</b>   | Multifunctional mixture of active ingredients and silicone. APEO and VOC free.          | o/w emulsion | 0,05-0,3   | ■                 | ▼                   | ■               | ■                    | ▼                      | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis G-240</b>   | Multifunctional mixture of active ingredients and silicone. APEO and VOC free.          | o/w emulsion | 0,05-0,3   | ■                 | ▼                   | ■               | ■                    | ▼                      | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis G-250</b>   | Multifunctional mixture of active ingredients and silicone. APEO and VOC free.          | o/w emulsion | 0,05-0,3   | ■                 | ▼                   | ■               | ■                    | ■                      | ▼                     | ▼                    | ■              |               |                          |
| <b>Romis L-330</b>   | Polysiloxane copolymer. Mineral oil free.   | o/w emulsion | 0,1-0,5    | ▼                 | ▼                   | ■               | ■                    | ■                      | ■                     | ▼                    | ■              |               |                          |
| <b>Romis S-24</b>    | Silicone based. APEO free   | o/w emulsion | 0,01-0,1   | ▼                 | ■                   | ■               | ■                    | ▼                      |                       | ■                    | ■              | ■             |                          |
| <b>Romis SW-10</b>   | Silicone based . Mineral oil free. APEO and VOC free.                                   | o/w emulsion | 0,05-0,2   | ▼                 | ▼                   | ■               | ■                    | ■                      |                       | ▼                    | ■              |               |                          |
| <b>Romis FC-13</b>   | Silicone based. APEO free   | o/w emulsion | 0,05-0,1   | ▼                 | ▼                   | ▼               | ■                    | ■                      | ▼                     | ▼                    | ▼              |               |                          |
| <b>Roment 711/A</b>  | Mixture of polymers and copolymers. Silicone free. APEO and VOC free                    | white powder | 0,1-0,6    |                   |                     |                 |                      |                        |                       |                      |                |               | ■                        |

■ – recommend application ▼ – possible application



## **CONTACT INFORMATION**

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### ***Liability***

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