Chemical specialists, Rohm and Haas, which launched the first acrylic floor polish binder nearly 50 years ago, is an international leader in the development of products and processes in the floor care industry and has become the world’s largest supplier of polymers to the floor care market.

The floor care sector consists of floor finish polymers, floor sealer polymers and alkali-soluble levelling resins.

“The local operation, which manufactures a range of floor care polymers used in floor polishes and sealers for a wide range of industrial, commercial and domestic applications, is committed to developing and maintaining industry standards,” says Les Message of Rohm and Haas SA. “Product technology has enabled Rohm and Haas to launch many world firsts in floor care - the first acrylic floor polish binder, the first removable, detergent-resistant floor polish polymer, as well as the first high-gloss, high-wear floor polish binder.

“Other ‘firsts’ include an emulsion for stain resistant, resilient tile sealers, metal-free and mixed metal technologies and an aqueous, acrylic-silicone hybrid polymer for clear wood finishes.”

Rohm and Haas Duraplus™ and Primal™ branded polymer emulsions, which are used for formulating floor polishes, enable manufacturers to produce high performance floor polishes that meet stringent gloss, durability, maintenance and cost specifications.

Also in the Rohm and Haas range are Primal floor sealer polymers that form a permanent base coat on virtually any flooring substrate, including concrete, terrazzo and vinyl composition tiles. Floor sealers, which are applied directly over the flooring substrate under the layers of floor polish, provide good adhesion to the substrate. They also protect the substrate from damage or chemicals and prevent the penetration of stains.

Primal alkali-soluble levelling resins are used in the manufacture of floor polishes to optimise wear resistance and to ensure that the polish forms a smooth, uniform surface on the flooring substrate, enhancing its appearance.

Through the company’s South African distributor, Servochem, the New Germany operation provides a national technical advisory service that includes performance details and benefits of each product range. Specialists also provide recommendations about where each product should be used according to specific facility and substrate types.

In addition to this product line, Rohm and Haas is an international leader in the fields of coatings raw materials, surface finishes, adhesives and sealants, ion exchange resins, as well as consumer and industrial speciality products.

Released by Lindy Morton Festivitas
(031) 502 2374 or 083 268 6666

For further information contact
Patrick Johnson, Servochem (011) 823 5341,
patrickj@servochem.co.za
COLUMBIA, MD – March 29, 2007 – W. R. Grace & Co. (NYSE: GRA) has received the International Business Leadership Award from the World Trade Center Institute (WTCI). The award is presented annually to recognize Maryland companies and executives that have achieved global business accomplishments. Grace President & CEO Fred Festa will accept the award on March 29 at a dinner attended by more than 400 people.

Grace is headquartered in Columbia, Maryland and operates a research facility, technical service center and manufacturing plant that employ more than 1,000 people throughout the state. The company has been a member of the Maryland business community for more than a century. In 2006, Grace’s sales topped $2.8 billion with international markets accounting for over 60% of revenues, up from approximately 40% in 2003.

“I am pleased to accept the award on Grace’s behalf,” remarked Festa. “In the past year, we have opened offices and labs in the United States, China, Russia, India and Poland. This growth is only possible with a significant amount of teamwork and strong leadership in all regions.”

The WTCI is a non-profit organization that was established in 1989 in Baltimore, Maryland. More than 2,500 Maryland firms benefit from WTCI’s global network and international business programs. WTCI is a member of the World Trade Center Association, along with nearly 300 fellow World Trade Centers operating in major business cities around the world.

Grace is a leading global supplier of catalysts and other products to petroleum refiners; catalysts for the manufacture of plastics; silica-based engineered and specialty materials for a wide range of industrial applications; specialty chemicals, additives and building materials for commercial and residential construction; and sealants and coatings for food and beverage packaging. With annual sales of more than $2.8 billion, Grace has about 6,500 employees and operations in over 40 countries.

For more information, visit Grace’s web site at www.grace.com.
NEW ROOF COATINGS PRODUCT DEVELOPMENTS FROM ICC

PHYSICAL DESCRIPTION:
High strength green oxide and maroon oxide universal pigment preparations supplied as easily pourable pastes for gravimetric dispensing or in-plant tinting application.

USE:
This colourant can be of particular interest for in-plant tinting of roof coatings. A new colourant specifically designed to assist paint manufacturers that currently co-grind dry pigment into their base paints to easily tint standard factory colours by using in-plant tinting.

Standard factory co-ground roof coatings (and other water based paints) colours can be easily matched by with these colourants. All colours can also be tinted further e.g. made darker with XWB (high strength carbon black).

Please feel free to contact us for a clear base paint guide formulation based on various polymer emulsions to demonstrate how to easily formulate a clear base that can be tinted in-plant with this colourant - instead of co-grinding dry pigments.

PRODUCT CODE AND NAME : XWGN - XERASPERSE OXIDE GREEN
DENSITY AT 25 °C : 1.80 – 1.90 g/cm³ @ 25 °C ± 1 °C
C.I.Number Pigment Green 17 : 65.0 % by mass
XWGN: Typical colour – pastel and masstone

PRODUCT CODE AND NAME : XWMO - XERASPERSE MAROON OXIDE
DENSITY AT 25 °C : 2.10 – 2.20 g/cm³ @ 25 °C ± 1 °C
C.I. Number  Pigment Red 101 : 65.0 % by mass
XWMO: Typical colour – pastel and masstone

COMMON QUESTIONS

PHILIP GREEN, PAINT TECHNOLOGY CONSULTANT
NUMBER 8
WHY DOES GLOSS, UNDERCOAT OR EGGSHELL SKIN IN 20 LITRE TINS ONLY?

Customers who make premium solvent based products based on long and medium oil alkyds frequently ask this question.

A brief explanation is as follows:

a) From my work at many companies it is always gloss enamels, eggshells or undercoats in 20 litre pails that have this problem. Batches of the same product packed in 5 or 1 litres never show this problem (if they do then the anti-skin level is too low and needs to be optimized).

b) Its time related - all the 20 litre cans that show the skinning problem are normally 6-9 months old or older (unless there is a specific batch with faulty lids or it packed very hot-which may show the problem immediately but they are the exception the 6-9 month old batches are the rule).

c) Some people suggest increasing the anti-skin level in an attempt to solve the problem. We tried this at several companies (from 0.2 to 0.3%) and all it does is slow down the drying slightly and stretch the time before skinning by 2-3 months. It does not solve the problem but does potentially cause possible drying problems and increases costs.

d) Most of the 20 litres that skin are colours and they were batches that had been in stock for 6 months or longer. When questioned closely on this topic the sales people say that they need these colours in 20 litres for the contractors because it’s cheaper for the contractor to buy 1 x 20 than 4 x 5 litres (we worked out that the contractor saves R 30-40 per 20 by doing this). We spoke to some contractors and they agreed that cost was the driving force but from a logistics and possible site theft point of view they actually preferred 5 litres.

In conclusion I really think that if you are a paint company and you have a skinning problem only in 20 litres you should look at the actual sales of 20 litres of the products (I think that you will find they are not that high), and make a decision to stop selling 20 litres of those products and give contractors that buy 4 x 5 a special price (Somewhere in between the current 20litre and 4 x 5 litre costs). Obviously each individual company needs to make the decision but in the end I really don’t think the gain in sales for 20 litres of these products rarely outstrips the pain that the skinning problem causes.

For further details/help contact the author or your local Servochem branch.
Acrylic Resins for Protective Coatings

SYNOCURE 878 N 60, SYNOCURE 879 N 60 and SYNOCURE 864 N 60 are hydroxy functional acrylic polyols that offer the formulator optimum flexibility for formulation to cost and performance.

<table>
<thead>
<tr>
<th></th>
<th>SYNOCURE 878 N 60</th>
<th>SYNOCURE 879 N 60</th>
<th>SYNOCURE 864 N 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Volatile Content (%)</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Viscosity (mPas @ 25°C)</td>
<td>2350</td>
<td>3750</td>
<td>2400</td>
</tr>
<tr>
<td>Volatile</td>
<td>Aromatic hydrocarbon solvent 160 - 180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydroxyl Content (%)</td>
<td>2.7</td>
<td>2.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Acid Value (mgKOH/g)</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Durability</td>
<td>Regular</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

Two-component acrylic/isocyanate systems have been the most successful type of chemistry for protective topcoats for many years because they satisfy the key requirements of long service life, colour stability and chemical resistance to name a few. An important consideration in selecting the acrylic component is the hydroxyl content, and its effect on both performance and cost.

Cost and performance data below graphically illustrates the benefits of these products.

Data is also included for SYNOCURE 865 EEP 70, a 3.1% OH acrylic polyol supplied at 70% NVC. SYNOCURE 865 EEP 70 is a proven high performance resin, with exceptional performance under Florida sub tropical weathering testing.

Contact your local Servochem representative or CRAY VALLEY for more details.

www.crayvalley.com
Servochem Natal and Huntsman Tioxide held their annual charity golf day at Beachwood in March. Money was raised this year for the NSRI and Ian Nicholson was very pleased to hand a cheque for R50,000-00 to Dave Sievewright. A fantastic, fun-filled day was had by all. A very big thank you to all our suppliers for their ongoing support as well as the generous contributions made by players on the day.

See you all next year!!

Servochem Natal MOVERS & SHAKERS

We recently handed 5 year service awards to Tenille Richards and Reg Hoddinott.

We welcome Michelle Naidoo (Internal sales), Patrick Makalisa (Gardener) and David Miya (Driver) to the Natal team.

Congratulations to Ivan Maduna who was recently promoted from a driver to Despatch Clerk.

Tenille and Alicia, our two very pregnant internal sales ladies who are going off on maternity leave at the end of June, compare notes!
Formulating Non Drip Alkyd Enamels

There are many possible ways to formulate non-dripping alkyd enamels. Organoclays are probably the most common additives to obtain a better sag resistance, but due to the gloss reduction and poor leveling (brushmarks, roller marks..) they also have significant disadvantages. The usage of thixotropic alkyd resins is another formulation opportunity – with good results, however, the level (and cost) of thixotropic alkyds in the paint formulation is quite high, and not every paint manufacturer can handle the high viscosity gelly thixotropic alkyds at their plant.

Figure 1: Chemical structure of BYK Modified Urea Additives
With the modified urea additives BYK-410 and BYK-411 (Fig.1) coating formulators have got new opportunities to create non drip alkyd primers and enamels. Both additives provide best results when used as post-additive, typical usage levels range from 0.3 to 0.8 %.

The medium polarity BYK-410 works best in short oil alkyds, but in many cases also in medium and long oil alkyds, especially when the OH value and acid value of the resin is relatively high (OH value > 40, acid value > 15 mg KOH/g). A small addition of alcohols or glycols (1-3 % butanol, propylene glycol methyl ether, or propylene glycol) before incorporating BYK-410 can significantly increase the rheology response, and result in a much better sag resistance. BYK-410 should be added under continuous mixing, as the last ingredient of the formulation. It takes some time until the final rheology is achieved, therefore we suggest to test the “non-drip” properties not directly after the addition but overnight. Sometimes the paint may have a “gelled” appearance after a few days – this is an indication that the additive is highly effective and the dosage was probably too high.

Figure 2: Sag Resistance in an Alkyd Enamel with BYK-410 – without and with Propylene Glycol

Fig. 2 gives an indication about the sag resistance with BYK-410 in a typical long oil alkyd enamel formulation, without and with propylene glycol addition.

In many long oil alkyd paints not BYK-410 but the lower polarity version BYK-411 provides the best results for sag resistance. The addition of 1-3 % propylene glycol before incorporating BYK-411 may also increase the sag resistance or accelerate the development of rheology (Fig.3), especially when the OH value of the resin is low (below 30 mg KOH/g). BYK-411 also should be added to the paint as the last ingredient, under continuous agitation.

Figure 3: Rheology Build-up with BYK-411
A special benefit of paints with BYK-410 or BYK-411 is the excellent leveling (no brushmarks or roller marks) and gloss, while maintaining a good sag resistance. The high shear viscosity with BYK-410 or BYK-411, compared to organoclays, is quite low, which results in an excellent brushability of the paint (Fig. 4). Many customers also reported excellent sag resistance in base paints, tinted afterward with glycol colorants.

Figure 4: Rheology with BYK-411 and Organoclays in Alkyd Enamels

HIGH GLOSS ALKYD ENAMEL GENERIC FORMULATION

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long oil alkyd resin</td>
<td>64 %</td>
</tr>
<tr>
<td>Disperbyk-108</td>
<td>42.00</td>
</tr>
<tr>
<td>Titanate dioxide</td>
<td>0.50</td>
</tr>
<tr>
<td>Blanc Fixe ABR Special</td>
<td>18.00</td>
</tr>
<tr>
<td>Letdown</td>
<td>15.00</td>
</tr>
<tr>
<td>Long oil alkyd resin</td>
<td>0.50</td>
</tr>
<tr>
<td>Mixed Drier</td>
<td>0.30</td>
</tr>
<tr>
<td>Methyl ethyl ketoxime</td>
<td>3.00-3.20</td>
</tr>
<tr>
<td>White spirits</td>
<td>2.00</td>
</tr>
<tr>
<td>BYK-411</td>
<td>0.30-0.50</td>
</tr>
</tbody>
</table>

Please contact the local BYK-Chemie representative for further information.