ROMIRA

ROMITRON® PPS: CLIMBING UP THE POLYMERS PYRAMID

> PAGE 03
Dear Business Partners, dear Ladies and Gentlemen,

In this, the second year of the pandemic, our industry is still being confronted with similar challenges to those we faced in 2020. While we have learned to manage this situation, and despite the fact that the general feeling in the European plastics industry is positive at the moment, operations continue to be characterized by a tight supply situation and persistently high material costs. So as to continue to be a reliable partner for our customers, the companies of the ROWA GROUP have been adjusting their inventories for several months in order for us to be able to supply customers quickly, flexibly and within acceptable delivery times.

Following an initial period of shock in the spring of 2020, I am delighted to report that our companies are now doing so well that we are able to operate almost “back to normal”. This is largely due to our dedicated employees, particularly our sales team, who have maintained personal contact with our regular customers even during restricted times. Providing this high level of personal service and support is firmly rooted in our DNA.

Which is why we are especially looking forward to Fakuma, this will be the first in-person trade show of this size and will give us the opportunity once again to share ideas and experiences. And, we will finally be able to show our usual hospitality at our booth in Hall B1 and personally present the new and further developments of our portfolio.

For instance, ROMILLOY® compounds, which we have tested for resistance to disinfectants. ROWASOL’s first gravimetric gear pump is an impressive new development that significantly increases the precision of concentrate delivery and minimizes waste. Also, the ROWA Masterbatch team have been using their expertise over many years now to ensure that the recycling of plastics is more efficient and less complicated. I wish you all an enjoyable read and look forward to seeing you at Fakuma!

With best regards,

Your Kai Müller

Congratulations: SUCCESS ALL ALONG THE LINE

The ROWA GROUP warmly congratulates this year’s trainees and is pleased that all trainees will remain part of the ROWA GROUP team.

Tolga Berrak has completed his three-year apprenticeship in the field of process mechanics specializing in plastics and rubber technology. Tolga will be supporting the ROWA Masterbatch team in the technical center in the future.

Our new colleagues Shady Tamer and Georg Ibrahim successfully completed their final examinations having each completed two years of training as production specialists in chemistry. Shady Tamer will be working in production at ROWA Masterbatch, Georg Ibrahim will continue his career at ROMIRA in quality assurance. We at ROWA GROUP would like to congratulate them on the successful completion of their apprenticeship and look forward with them to the future!

Special praise is particularly due to Shady Tamer and Georg Ibrahim, who only arrived in Germany shortly before the start and, in addition to the theoretical and technical challenges of the apprenticeship, they also managed to successfully master the linguistic hurdles.

In August this year Maja Meyer and Tom Brehmer started their apprenticeship at the ROWA GROUP as industrial clerks and Seyman Tokay as process mechanic in the field of plastics and rubber technology - once again: welcome!

Apprentices are and shall remain an important element of the ROWA GROUP: We are pleased to already be receiving applications for the following occupations for 2022: Plant and machine operators, materials testers, process mechanics specializing in plastics and rubber technology, industrial clerks and production specialists in chemistry.

Roast in Peace:
INTO THE WORKING DAY
WITH FROHNATUR!

As of October, the ROWA GROUP will be starting off the day with an excellent cup of coffee.

Our new coffee machines will be stocked with Frohnatur filter coffee supplied by KAFFEEREI: a small coffee roasting company from our direct neighborhood. Frohnatur is a filter coffee from Guatemala that has distinctive notes of milk chocolate, walnut and cherry. KAFFEEREI operates under the motto „Roast in Peace“ and sources green coffee from a variety of coffee-growing regions, it then processes it into filter coffee and espresso beans using the finest craftsmanship and a sensitive nose for coffee.

We decided to work with the young team from KAFFEEREI in part because of their commitment to both sustainability - the coffee is supplied in a reusable 2kg container - as well as fair payment for the local coffee farmers. Plus, €0.25 of every kilogram of coffee sold is donated to a regional non-profit organization.

Anyone who is interested in buying the high-quality and lovingly roasted coffee or espresso for home can do so under www.diekaffeerei.com.
Well known for their technical polymers and as a strong player offering polymeric materials total solutions, ROMIRA expands its product portfolio to High Performance Polymers (HPPs).

HPPs are generally classified as those polymers that have continuous service temperature exceeding 150 °C, along with superior mechanical and tribological properties and excellent chemical resistance. Examples are polysulfones, polyetherimide (PEI), polyether-ether ketone (PEEK), thermoplastic polyimide (TPI), polyphenylene sulfide (PPS), etc.

HPPs have a lot of industrial applications and are well spread in almost all key and expansive industries from automotive and aerospace to oil and gas and medical sectors. HPP Market is growing at a faster pace with substantial growth rates over the last years. The major growth drivers are improved performance, cost-effectiveness, and lighter weight. As an example, these polymers are widely used in the automotive industry due to the continuing need for weight reduction, improved fuel efficiency, and more environmentally friendly attributes whilst enabling easier manufacture, faster assembly, and extended component life.

In order to respond to this growing market demand, ROMIRA develops further by adding new HPPs to their product portfolio. To this end, ROMIRA has been equipped with new high heat extruders for both laboratory and large-scale production. These advanced extruder lines enable ROMIRA to process a wide range of HPPs up to 450 °C. It is necessary to consider the special requirements for processing these polymers and the limitations of standard extrusion equipment. In addition to processing issues, there are matters of safety and economics. Furthermore, new development and processing technologists joined to ROMIRA with the aim of facilitating research and development process and to deal with possible technical issues.

ROMIRA now adds PPS as the first high performance polymer to their very broad portfolio of engineering polymer families. ROMIRA offers standard grade PPS compounds filled by glass fibre and/or minerals under its own brand name “ROMITRON®”.

ROMITRON® PPS compounds possess superior advantages over existing engineering polymers. The main feature of ROMITRON® compounds is its higher heat resistance that makes it an ideal material choice for demanding applications. ROMITRON® PPS has long-term service temperature of 210 °C, while other technical polymers cannot withstand temperatures above 130 °C continuously.

In addition to heat resistance, ROMITRON® compounds have extremely low moisture absorption and excellent chemical resistance. This enables ROMITRON® compounds to be used effectively in harsh-environment applications, where other HPPs like high-heat polyamides do not exhibit desirable performance.

With its high service temperature and excellent chemical resistance, ROMITRON® compounds can be used in a variety of applications such as under-the-hood automotive parts, fuel and cooling parts, headlight parts, high heat connectors and plugs, electronics and many other applications.

In addition to standard PPS compounds, R&D activities are conducted on PPS-based specialties and blends to develop new solutions and meet specific demands of the customers.

Further information on the subject of “Coloring high-performance plastics” can be found at https://www.rowa-group.com/en/news

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Disinfect without risk
ROMILOY® EXHIBITS HIGH MATERIAL RESISTANCE

Since the start of the Corona pandemic, disinfecting plastic surfaces has become a continuous task in our daily lives, whether in shops, offices or our own homes. This has brought about the issue of stress cracking, which was previously mostly important in the medical sector, but has now become relevant for many ordinary items of daily use, such as shopping carts. ROMIRA has tested selected compounds for their material compatibility with disinfectants so that customers can be assured of the usual high quality in response to these new demands.

Plastics must be able to withstand a wide variety of different requirements, depending on where they are used. For disinfectants, these requirements include the user (layperson, specialist), the duration of application and the active ingredient (e.g. alcohols, aldehyde or ammonium compounds [Quats]). The standards DIN EN ISO 175 and DIN EN ISO 22088-3 are used to test the compatibility of plastic materials with media, in particular disinfectants.

A significant difference between the two tests is that in the DIN EN ISO 22088-3 measurement, the test bar is clamped with a defined bending. Moreover, the standard test time of 24 hours is shorter than that of DIN EN ISO 175, which is one week. And DIN EN ISO 22088-3 specifies the formation of stress cracks as a failure criterion, while DIN EN ISO 175 is based on a change in weight or mechanical tests.

ROMIRA has tested both ROMILOY® compounds 4010/07-1 UV and 5820 UV according to DIN EN ISO 175 and DIN EN ISO 22088-3. These two compounds are used by our customers in the medical technology sector. The results of the test according to DIN EN ISO 175 are shown in Table 1.

After one week in the respective disinfectant, both ROMILOY® 4010/07-1 UV and ROMILOY® 5820 UV continue to exhibit more than 80 % of the original modulus of elasticity or notched impact strength and are consequently resistant.

The stress cracking resistance of the two compounds was determined according to DIN 22088-3 in addition to their general resistance. Even after 48 hours, twice the specified standard time, no stress cracks occurred in the material. The modulus of elasticity of the specimens tested according to DIN EN ISO 22088-3 was then determined (see Figure 1). As with the test according to DIN EN ISO 175, at least 80 % of the original modulus of elasticity remains. With its compounds, ROMIRA offers the best basis for a hygienically clean everyday life.

<table>
<thead>
<tr>
<th>TABLE 1: E-MODULUS OF ELASTICITY AND NOTCHED IMPACT STRENGTH AFTER ONE WEEK IN THE RESPECTIVE DISINFECTANT</th>
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<tbody>
<tr>
<td><strong>ACTIVE SUBSTANCE</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td>100 % alcohol</td>
</tr>
<tr>
<td>30 % alcohol</td>
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<tr>
<td>Aldehyde</td>
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<td>Quats</td>
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*Reference measured after one week in water

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<tr>
<th>FIGURE 1: MODULUS OF ELASTICITY ACCORDING TO DIN EN ISO 22088-3 TEST</th>
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<tr>
<td><strong>E-Modul [%]</strong></td>
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<tr>
<td>----------------</td>
</tr>
<tr>
<td>100 % Alcohol</td>
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<tr>
<td>180</td>
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<tr>
<td>100</td>
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<tr>
<td>60</td>
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*Related to reference in water
ROWASOL is expanding its ROWAMETRIC dosing system portfolio for liquid colors with a gravimetric gear pump from the manufacturer Micro Interface Design (MID). The main advantage of gear pumps is generally their ability to build up high pressures in a compact design. Thus, a pressure of up to 100 bar can also be generated with this system, which can be monitored by an optional pressure sensor at the pump outlet.

When using liquid colors in extrusion applications, pressure injection offers the possibility of dosing the color downstream, e.g. on the processing section of the extruder or even downstream in the melt pipe. In this way, extremely fast color changes can be produced.

Up to now, gear pump systems available from ROWASOL have relied on volumetric control of the output, i.e. a theoretical throughput calculation depending on the density of the color and the volume of the pump head. Any deviations in output are only detected downstream in the produced part. However, the new system works based on MID proprietary gravimetric control algorithm which adjusts the control parameters based on the mass of color leaving the container. In this way, significantly higher precision is achieved and waste is minimized. At the same time, the load cell, which is designed for a mass of up to 50 kg, also monitors the fill level, which can be visualized by means of an optionally available alarm signal light or transmitted as a signal to a master computer.

The system can be equipped with three different pump heads with a wide spread for throughputs between 0.0018 and 63 l/h, which can be exchanged in just a few steps without tools for even faster color changes and maintenance work.

For a continuous production process, it is possible to switch temporarily, manually or automatically, to volumetric operation mode and, for example, to refill from a larger supply container via transfer pump. The container can also be changed „on the fly“ thanks to the use of quick-release couplings. The hose section between the container and the pump inlet serves as a color buffer.

Since 24.11.2020, KFW, one of the world’s leading development banks, has offered a subsidy program (grant 440) for the installation of wallboxes. The grant amounts to a flat rate of 900 euros per charging point. The following basic requirements must be met for this subsidy:

- Wallbox must have a charging capacity of 11 kW.
- The charging station must be permanently installed.
- The electricity for the wallbox must come exclusively from renewable energies.
- The charging station must be listed on a list for KfW eligible wallboxes.

More information
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NEW BLACK MASTERBATCH FROM ROWA MASTERBATCH USING A SUSTAINABLE PA6 CARRIER MATERIAL AND RECYCLED CARBON BLACK

It is imperative that the plastics industry also participate in minimizing the use of fossil resources by closing material cycles in order to achieve the goals of the Paris Climate Agreement. ROWA Masterbatch intends to play an important role in this and is therefore successively expanding its portfolio to include increasingly more sustainable products. During the development of the ROWALID® Eco product range, emphasis was placed on the use of raw materials that significantly reduce carbon dioxide emissions (carbon footprint).

The ROWALID® EcoPA-B095A BLACK rCB masterbatch is a new product in this series. Its carrier material is based on high-quality post-industrial recycled polyamide. The colorant used is a recovered carbon black (rCB). A „green“ substitute for industrial carbon black, this raw material gives plastics a black coloration, UV protection and opacity.

Recovered carbon black is obtained through the pyrolysis process: this is a thermal process in which used tires are heated up to between 250 and 750 °C without the presence of oxygen and subsequently broken down into smaller molecules. This process typically produces a highly aromatic pyrolysis oil (approx. 45 %), crude pyrolysis carbon black (approx. 33 %), recycled steel (approx. 12 %), and a non-condensable hydrocarbon gas (approx. 10 %). By grinding and granulation, the crude pyrolysis carbon black can then be processed to recovered carbon black and further treated as required [1].

The new black masterbatch is ideally suited for applications in automotive engineering, electronics and electrical engineering, construction, and sports and leisure products. ROWA Masterbatch, a specialist in the development and production of polymer-specific color, additive and multifunctional masterbatches as well as specialty compounds for thermoplastics, is once again supplying a product that combines its own uncompromising quality standards with a firm commitment to greater sustainability, environmental protection and the careful use of resources.


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Network with a future: ROWA MASTERBATCH NOW A MINUTEX PARTNER

MINUTEX is a network of RAS AG and funded by the Federal Ministry for Economic Affairs and Energy as well as by the ZIM (Zentrales Innovationsprogramm Mittelstand [Central Innovation Program for SMEs]), is dedicated to establishing an „innovation platform for technical textiles with regard to a reduced release of microplastics“. ROWA Masterbatch has recently become part of this network.

As a MINUTEX partner, ROWA Masterbatch is working together with other members representing SMEs, industry and research to establish and market ecologically sustainable and economically sound solutions and product innovations. The objectives are not only to protect the environment, but also to strengthen competitiveness, to secure and create jobs and to actively participate in future market regulation. The network is able to combine knowledge on the formation, effects and avoidance of microplastics from technical textiles in such a way that not only new products and processes with reduced microplastic content can be developed, but also arguments against non-targeted regulation can be presented in good time.

“Environmental pollution caused by microplastics is one of the major issues of our time. We are fully aware of the problem and the danger and wish to actively contribute to solutions”, says Bernhard Scheffold, Managing Director of ROWA Masterbatch, commenting on becoming part of the MINUTEX network. For more information on MINUTEX, please visit minutex.de or contact ROWA Masterbatch.

TRASTATIC GMS 25 – CELL STABILIZER AND ANTISTATIC AGENT

In addition to the well-known TRACEL® foaming and nucleating agents TRAMACO develops and produces other additive concentrates, which are primarily optimized for foamed plastics but which are as well used for compact applications.

TRASTATIC GMS 25 is a cell stabilizer for polyolefins. When used as an additive in polyethylene- or polypropylene-foams it improves the rheology of the melt and by that provides an even cell structure and a better foam formation. The surface active substance of the TRASTATIC masterbatch stabilizes the gas bubbles formed during the foaming process. This effect becomes particularly apparent in physical foaming. While without additional stabilization the blowing gas diffuses faster out of the polymer matrix than the ambient air can diffuse into it, resulting in collapsing or at least shrinking foam, TRASTATIC controls the gas exchange, providing dimensional stability to the foam. Also chemical foaming processes can benefit from this effect.

Furthermore TRASTATIC GMS 25 is a very effective and fast antistatic agent, which reduces static charge of foams and also compact plastic products. Due to the fast migration of the active substance to the surface, the decrease of the surface resistance starts immediately after the processing and lasts for months.

Apart from TRASTATIC GMS 25 TRAMACO’s portfolio offers additional cell stabilizers, antistatic batches and other functional additives.

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More room for the essentials: WAREHOUSE EXPANSION AT ROWA LACK

Owing to changing needs, it became necessary to adapt the production site of ROWA Lack in Seevetal. An expansion of the storage capacity in the hall was carried out during last year to suit the new requirements. The consumables and raw materials stored in the hall were temporarily moved out of storage to ensure that the conversion work could be carried out quickly.

Good planning and organization meant that there were no disruptions to the production process.

The work was completed and the warehouse filled after just one month. Through the redesign of the warehouse, an optimal arrangement of new heavy-duty racks was implemented, a warehouse office established and the storage area was increased by 20%. As a result of the expansion, it is now possible to react even more flexibly to specific demand situations, meaning that a reliable workflow is possible in all aspects of order processing and production planning.

A new chapter in the company’s long history began for ROWA Lack on July 01, 2021: After more than 22 years in the company, Helmut Vollinger handed over the managing director post to Dr. Robert Fichtler.

Mr. Vollinger will enter into a well-deserved retirement at the end of this year and until then will continue to support ROWA Lack with his extensive industry and technical knowledge. Helmut Vollinger had been Business Unit Manager since 2010 and was appointed Managing Director in June 2013.

He will be succeeded by Dr. Fichtler. Dr. Fichtler, who holds a doctorate in chemistry and joined the company in 2016, has been head of sales since 2018. Prior to joining ROWA Lack, he had already gained extensive experience in the lacquer sector over a number of years.

“Helmut Vollinger is handing over an intact, successful company. It is thanks to him that the name ROWA Lack is held in such high esteem. Maintaining this reputation and successfully shaping the future is our foremost objective”, Dr. Fichtler commenting on the handover. Of course, the team at ROWA Lack will continue to give top priority to working in partnership with customers and implementing its strengths in service and flexibility.

Change in Management at ROWA LACK

SEPTEMBER 28. - 30, 2021, BIRMINGHAM, UK, HALL 4, BOOTH G27
More than 350 exhibitors will present solutions, products and ideas at the 70th anniversary of this premier event for the British plastics industry - and of course ROMIRA will be there too.

OCTOBER 12. - 16, 2021, FRIEDRICHSHAFEN, HALL B1, BOOTH 1212
The industry is coming together in Friedrichshafen! The ROWA GROUP trade fair team is looking forward to some fascinating days and to welcoming numerous guests to its booth.

NOVEMBER 9. - 11, 2021, STUTTGART, BOOTH A4329
This trade fair is an absolute must for Tier 1 suppliers and interior designers. The date is also firmly fixed in this year’s ROMIRA calendar.

DECEMBER 1. - 4, 2021, ISTANBUL
Experts from Europe and the Middle East in particular meet in Istanbul at the end of the year for professional exchange, the ROMIRA trade fair team included.

MARCH 30. - 31, 2022, MANNHEIM, BOOTH 18
As a major partner to the automotive industry, ROMIRA will present the latest product solutions at the trade congress in Mannheim next spring.

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