

ROWA NEWS



NEWS FROM ROWA GROUP

ISSUE 02/2023

www.rowa-group.com



OCTOBER 17 - 23, 2023

HALL B1 STAND 1212



ROWA Masterbatch
**EFFECT MASTERBATCH
FOR SKI BINDINGS**

> PAGE 03

ROWA INC.
SUCCESSFUL INNOVATIONS

> PAGE 09

ROWA GROUP

> 02 Trade show review: It can carry on like this

ROWA MASTERBATCH

> 03 Effect masterbatch for ski bindings

> 04 The color trends of the future > 05 New testing system: Reliably testing process parameters and pigment dispersion

ROWASOL

> 06 A perfect match: liquid colors and bioplastics

ROMIRA

> 07 New development: PG GF10, V-0 compound ROTEC® PC 7040 GF10 FR without halogen-containing additives

> 08 Update on drinking water approval KTW-BWGL

ROWA INC.

> 09 Successful innovations

ROWA LACK

> 09 ROWALID® TIM: effect lacquers for coated fabrics

TRAMACO

> 10 Structural foam molding (SFM) with chemical foaming agent systems

> 11 UNICELL HMS expanded microspheres as ultra-lightweight fillers > 11 The innovative adhesion promoter system TRAPYLEN® 118 S

> 12 TRAMACO celebrates its 50th company anniversary

> 12 Trade fair overview

CONTENT





Kai Müller
CEO
ROWA GROUP

Dear Business Associates,
dear Ladies and Gentlemen,

there is a lot to talk about! On the one hand, there is the current crisis-ridden news situation, the still tense economic situation including ongoing inflation and a labor shortage, and the challenges for our industry associated with all this. And on the other hand, there is also a lot of positive news to talk about - so much that we didn't get by with eight pages of ROWAnews as usual!

It goes without saying that all of the ROWA GROUP companies can be found at THE trade fair of the year, and they'll be very happy to report on new developments, services and trends in personal discussions at Fakuma. On the following pages, we offer you a few insights: On the right-hand side of this page, you can find out how ROWA Masterbatch has developed a polymer-specific color masterbatch that can master even the steepest ski slope. Read about an equally impressive new product on page 7, where ROMIRA introduces a polycarbonate that contains no halogen-containing or SVHC-positive listed products. You can find out why the ROWASOL team is a perfect contact when it comes to coloring bioplastics on page 6. In addition to valuable innovations in the areas of adhesion promoter and blowing agent systems, there is also some very special news on the part of TRAMACO: the company is celebrating its 50th anniversary this year, congratulations on this anniversary!

I hope you enjoy reading our plus size issue, which, by the way, leads you to your free fair trade ticket after scanning the QR code on the right. My colleagues and I are looking forward to interesting days at the fair - see you at stand 1212, hall B1!

With kind regards,
Yours Kai Müller

IMPRINT

Published by ROWA GROUP Holding GmbH
Siemensstraße 1-9 | 25421 Pinneberg
V.i.S.d.P.: Kai Müller

Edited by Menyesch Public Relations GmbH

Grafic design foersterdesign.com

Print Print & More Piffremont

Credits shutterstock.com, unsplash.com: Alexander Grey, Chris Biron
Bredan Church, Ronin, Milad Fakurian, Adam Birkett, Kirill SH
pixabay.com: petra, shouplade, cristian prisecariu, musitratu
PublicDomainPictures

ROWA GROUP



f. l. t. r.: ROWA Masterbatch: Arnold Mengedoth, ROMIRA: Guido Böckers und Benedikt Schierl, ROWASOL: Udo Wilkens



TRADE SHOW REVIEW: IT CAN CARRY ON LIKE THIS

In the run-up to the start of Fakuma, where all ROWA GROUP companies will be participating, we would like to take a look back at what has been taking place at the trade fairs so far in 2023:

We started at the end of March with the European Coatings Show in Nuremberg, bringing together nearly 25,000 experts from 42 countries to discuss the latest developments in pigments, lacquers, additives and adhesive raw materials. Our colleagues from TRAMACO and ROWA Lack were among the attendees, engaging in a large number of constructive discussions at their joint booth. At the Kuteno in Rheda-Wiedenbrück in mid-May, ROWA Masterbatch, ROWASOL and ROMIRA were represented by no less than three companies - and all with a uniformly positive conclusion: „The Kuteno is THE industry meeting place in northern Germany and was a resounding success for us in all respects“, summarizes Bernhard Scheffold, Managing Director of ROWA Masterbatch. The ROMIRA team is also extremely pleased with the first half of the year - in

addition to Kuteno, ROMIRA was also represented at PIAE in Mannheim, Plasttechnik in Malmö/Sweden, Equiplast in Barcelona/Spain and Interplas in Birmingham/UK. But this year is not over yet! ROMIRA will be informing interested visitors on the latest product developments and established services at the Plasteurasia in Istanbul/Turkey in November and at the automotive interiors in Stuttgart at the beginning of December: „It is the mixture of professional dialogs and personal exchanges with familiar and new contacts on an international level that provides our trade fair teams with so much satisfaction and that is always inspiring“, states Sven Guzielski, Sales Manager ROMIRA.

With this in mind: See you at Fakuma! ■

ROWA NEXT



FAKUMA 2023



OCTOBER 17 - 21, 2023

FRIEDRICHSHAFEN

HALL B1, STAND 1212



GET YOUR FREE TRADE
FAIR TICKET HERE



ROWA GROUP
HIGH PERFORMANCE ADDITIVES AND TECHNICAL PLASTICS

Mastering the steep slopes together!

EFFECT MASTERBATCH FOR SKI BINDINGS



The sports segment is constantly seeing fresh trends with new applications, new functions and new designs, in which the color concept very often plays a significant role. As a plastics specialist, designers are constantly challenging us in this respect and presenting us with exciting new demands in terms of structural design and color. A recent example for ski bindings demonstrates how ROWA Masterbatch competently addresses such demanding assignments.

The material properties and the functional component properties are closely linked when a plastic part is to be configured according to the design specifications using masterbatch coloration: In such cases, a color masterbatch interacts with its formulation components as an additional component in a natural-colored high-performance compound. Failure to take account of the possible effects of this interaction can lead to significant losses in the mechanical properties of the plastic used.

Long fiber thermoplastics, so-called LFTs, are particularly important in this context. As a specialist for customized high-performance materials, the LEHVOSS Group offers natural-colored LUVOCOM LFT and making colored components possible is precisely where ROWA Masterbatch comes into the picture: The color development, its evaluation and the testing of the component properties were implemented in close cooperation with the LEHVOSS Group and the end customer. A crucial point in the masterbatch development was to maintain the superior properties of an LFT. This requires special expertise and care in the selection of carrier materials, colorants and other components.

ROWA Masterbatch and LEHVOSS Group are working closely together in this area and have developed an effective system for the customer, in which the testing of the material properties is incorporated after the color setting in order to be able to provide the highest possible application reliability.

The cooperation between the two companies for MARKER Deutschland GmbH clearly demonstrates how well the interaction between ROWA Masterbatch and LEHVOSS Group can work in the development of a polymer-specific, individual color masterbatch: The globally renowned ski binding manufacturer MARKER is considered the inventor of the modern ski binding and is a leader in the fields of alpine and touring bindings. MARKER sets high quality standards and places correspondingly high demands on its components, both in terms of their purely technical functionality and in terms of their aesthetic appeal, as this plays a key role in the decision to purchase.

These requirements also applied to the components of a new touring binding: A masterbatch was to be developed for MARKER that would create an effect reminiscent of snow glitter when it was exposed to sunlight - an intriguing task for the colorists at ROWA Masterbatch as well as for the LUVOCOM LFT product developers.

ROWA Masterbatch has used its comprehensive understanding of materials for the LUVOCOM LFT, in this case a high-impact PA66-LGF, to design a product that has virtually no effect on mechanical properties. Of paramount importance for this application are impact strength and low-temperature impact strength.

Technical functionality and a dramatic appearance - as a result of the expertise in the properties of color masterbatches for use in long-fiber materials, ROWA Masterbatch and the LEHVOSS Group have succeeded in meeting MARKER's requirements in the most effective way possible. At the same time, this result is just one example of the many possible uses of polymer-specific masterbatches in sports and outdoor applications that are capable of meeting the most sophisticated specifications.

We are at your disposal for further information on this subject. ■



More information

Gisela Birnbaum

+49 4101 706 149

g.birnbaum@rowa-masterbatch.de



Technical functionality and effective optics

NEW APPLICATIONS
New functions

Get inspired!

ROWA MASTERBATCH REVEALS THE COLOR TRENDS OF THE FUTURE

On the subject of color trends, thoughts involuntarily drift to the catwalk - clearly, because colors and color effects play a particularly significant role in the fast-moving fashion industry. Yet color trends also have a considerable influence in many other industries and areas of life - from cosmetics packaging, automotive and E&E applications to numerous lifestyle products for everyday use - where they play a major role in purchasing decisions. Luckily, color expert ROWA Masterbatch is already aware of which colors and effects will be in vogue in the spring/summer season of 2025!

Taking the WGSN's trend color view as a basis, ROWA Masterbatch, in cooperation with effect pigment manufacturer KUNCAI, has once again this year created interesting, vibrant and unique nuances of the trend color tones from different corners of the color palette. Along with the pure tones of the respective nuances, one tone elaboration has been developed that reveals dramatic color effects and another that attains just a subtle change in the base tone.

Drawing on KUNCAI's broad product range and its own core competence in the field of synthetic mica effect pigments, ROWA Masterbatch has developed color-intensive, pure and - depending on the viewing angle - varying color formulations with high-quality and unique effects. These effects enable end products to make an impressive impression in the trend color environment and product properties gain a high profile at the point of sale due to the trend-adapted coloration with a „multi-effect“.

also be increasingly found in the real world. A sense of calming stability underpins the tone, something that experience has shown consumers are looking for in challenging, crisis-ridden times like these. Moreover, as a versatile color, Transcendent Pink lends itself to a wide range of applications and products across genders, demographics and seasons. Using interference red pigments, the colorists here have created a glittering pink that is guaranteed to meet with a great deal of approval and not just in the cosmetics sector.

AQUATIC AWE

Aquatic Awe embodies an exciting duality: In one sense, this transformative turquoise celebrates the fascinating aspects of nature and is reminiscent of bioluminescent marine life, in another sense, the hue also represents synthetic and digital themes. Whether used as a home accessory, in cosmetic packaging or automotive interiors, the prospects of encountering Aquatic Awe in the future are numerous and high. The use of various blue and green effect pigments creates an exceptional, extraordinary and captivating turquoise color.

SUNSET CORAL

This shade is an energizing feel-good color, an intense sunset hue that encourages focusing on the positive and represents the growing importance of escapism - themes that product designers are certain to embrace by infusing their objects with a sense of wellbeing through Sunset Coral. Pearlescent pigments with color flop create polychromatic effects to reveal different colors - resulting in breath-taking hues that can be combined in one and the same product.

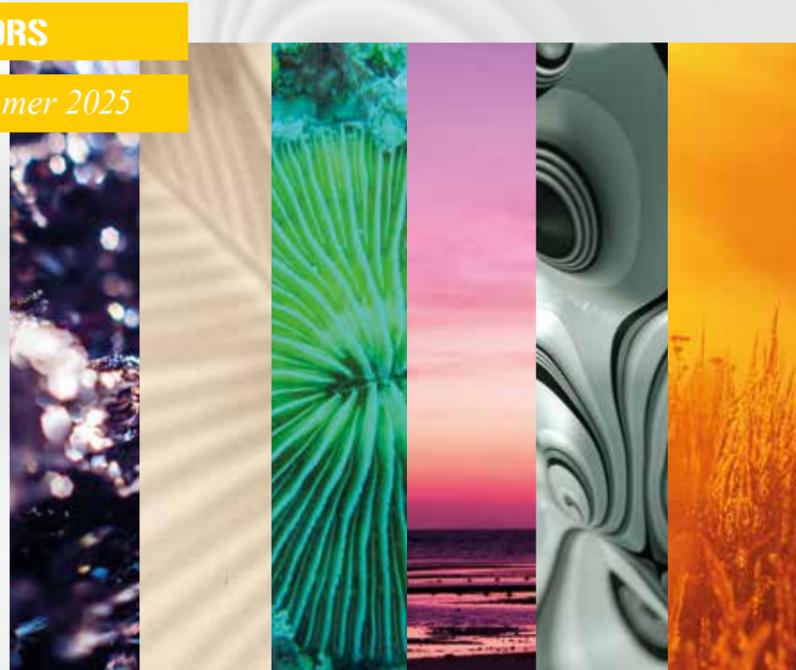
RAY FLOWER

Ray Flower is a radiant and warm yellow. This color has an inherently optimistic and wholesome quality that is associated with a focus on action towards a more sustainable existence. This color hue is also linked to the lunar eclipses that will take place in 2025. The prospects of success for Ray Flower are most certainly not dark at all - who wouldn't want to be surrounded by such a positive color scheme? Indeed, the use of various shades of yellow and gold increases the impact even further: The effect pigments used give the color an intense shine and consequently lend the item in question a particularly luxurious appearance. ■

The ROWA Masterbatch team will be presenting sample plates of these trends at the upcoming Fakuma and is looking forward to your visit!

> More information

Dorit Krienke
+49 4101 706 125
d.krienke@rowa-masterbatch.de



FUTURE DUSK – Color of the year 2025

Future Dusk is a dark, moody and intriguing hue situated between blue and purple that carries with it something of the mystical. The theme is one of transition and change - whether it be moving from dark to light or from dusk to dawn. The hue involuntarily evokes a celestial appeal, making Future Dusk sure to generate a great deal of interest in innovative tech-driven gadgets. The effect pigments used are a dark purple, representing luxury and grandeur and an interference pearlescent pigment, which creates intriguing alternating colors depending on the perspective from which it is viewed, lending a sense of excitement to even the most unassuming items.

TRANSCENDENT PINK

Transcendent Pink is a barely-there hue that is more like an elevated neutral tone giving it a grounding and balancing character. This color is already found in virtual worlds - by the spring of 2025 at the latest, it will

TRENDCOLORS

Spring / Summer 2025

New testing system at ROWA Masterbatch

RELIABLY TESTING PROCESS PARAMETERS AND PIGMENT DISPERSION

Color expert ROWA Masterbatch has once again demonstrated its high quality standards:

As part of a master thesis, the project team subjected a new testing device and the testing procedure to rigorous examination.

The demands of the plastics processing industry are constantly rising, films are becoming more thin-walled, fibers increasingly finer. The requirements for the dispersion of the pigments and fillers used are also growing at the same rate. The market for well-dispersible pigments is extensive, however there is often a need to use pigments that are not easily dispersible. Consequently, methods for determining the dispersion quality are gaining in importance. Common methods used in practice range from visual assessment of injection molded platelets or film samples under a light or scanning electron microscope through to the filter pressure test (FPT)

ROWA Masterbatch started an intensive, six-month test phase with the procurement of a new test device from Collin Lab & Pilot Solutions in the autumn of 2022, which was primarily planned and implemented by master student under the supervision of Dr. Susann Neubert, Head of Quality Assurance: This centered on an E25E-MP-IS filter test with melt pump and integrated screen changer. This test system standardizes the sequence of the entire test process and enables the filter to be changed without interrupting operation, thereby reducing the pure measuring and evaluation time, depending on the test specification. A laboratory extruder with a 25 mm screw diameter (25 D) was used to prepare the melt.

All common technical plastics up to 300 °C can be tested using the system. The test was performed with reference to DIN EN ISO 23900-5. The filter pressure test provides an objective measurement parameter that can be used to determine the quality of the dispersion of pigments and fillers in masterbatches.

The pressure increase can be used to draw conclusions regarding the dispersion of the pigments and impurities or fillers. The measured pressure increase is related to the amount of pigment used. Conclusions on dispersion can be derived from the determined filter pressure value (FPV). The following applies: the smaller the filter pressure value, the more effectively the pigment is dispersed and the higher the product quality. A built-in melt valve enables the test screen to be changed while the melt preparation continues to run uninterrupted - it is not necessary to shut down or stop the measuring device.

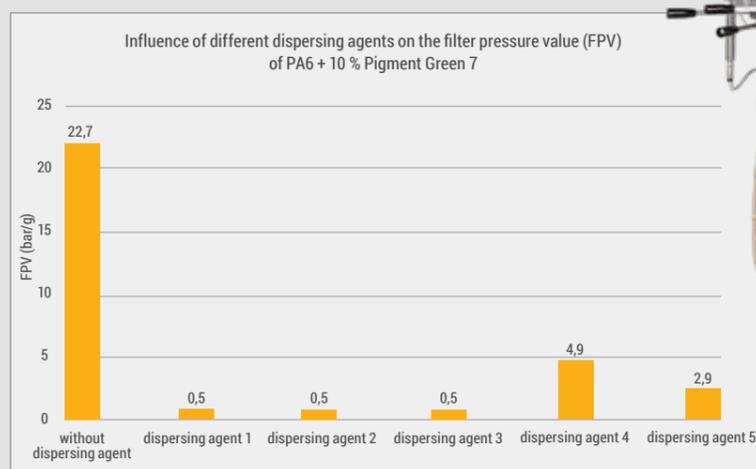
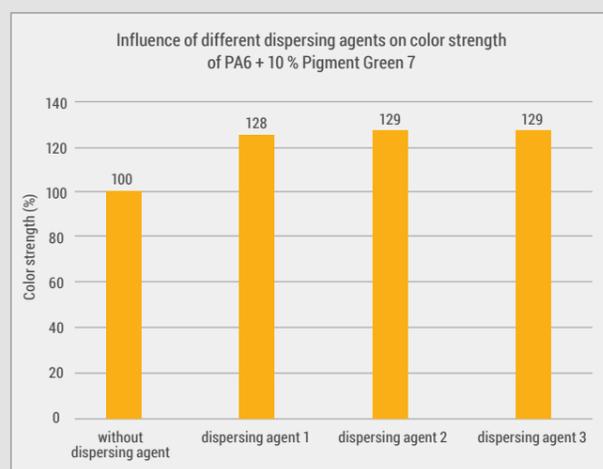
The master thesis investigated the influence of process parameters, such as different screw speed, throughput and split-feed process, in different polymers (LD-PE, PA6 and PMMA) with different, difficult-to-disperse pigments (Pigment Green 7, Pigment Black 7 and Pigment Red 122) and the use of different dispersing additives. The project team initiated a total of 115 individual tests on a ZSK26 technical center. In addition to the filter pressure value, the dispersion quality was also assessed on 50 µm thick flat films by means of a camera system and the color strength on white lightened injection molding platelets (s. diagram: Influence of different dispersing agents on the color strength, left).

masterbatch in PA6). As a comparison, flat films of the carrier polymers were previously prepared to quantify the defects caused by bubbles and gel bodies. Predictably, the addition of dispersants resulted in a significant reduction in agglomerates, which was consistent with the reduction in filter pressure values (s. diagram: Influence of different dispersing agents on FPV). The flat films produced were examined using an optical microscope (s. diagram: left without dispersant additive, right with dispersant additive). The image demonstrates that the flat films produced with dispersing additives exhibited a lower number and smaller sizes of agglomerates, indicating better dispersion of the pigments.

The project team, which included Dr. Neubert and M.Sc. student Mani Zendedel Haghighi, as well as Dorit Krienke, Head of Color Masterbatch Development, and Dr. Natalia Olichwer, Head of Additive Masterbatch Development, concluded that the determination of the filter pressure value is the visual testing of pigment dispersion on thin flat films. The Collin filter test is now an integral part of process development/optimization at ROWA Masterbatch and makes a relevant contribution in terms of quality standards. ■

Results and conclusion:

It was possible to demonstrate that the dispersion of, for example, Pigment Green 7 in PA6 was significantly improved using all the dispersing additives tested, while the process parameters remained unchanged. In contrast to the manufacturer's specifications, it was observed that not all dispersing additives were equally effective. The filter pressure value (FPV) was



Method and implementation:

In the first step, the natural material is extruded, then the masterbatch is added. The test material is melted in a single-screw extruder, homogenized and conveyed through a screen via a melt pump with a defined and constant volume flow. Particles above a specific size can clog the screen and consequently reduce the free flow through area of the screen. As a result, a greater pressure builds up in front of the screen, which is detected by a sensor (see image).

determined with a 10 µm screen. It was also confirmed that the improvement in dispersion of the pigments used simultaneously led to increased color strength. To achieve this, the masterbatch was lightened with a white pigment, as the color would otherwise be too saturated and it would not be possible to detect color differences.

An improvement in dispersion quality of up to 99.6 % was achieved in the production of 50 µm flat films (2 %

NEW

testing system



More information

Dr. Susann Neubert
+49 4101 706 450
s.neubert@rowa-masterbatch.de

Efficiently coloring a wide variety of bioplastics using ROWASOL liquid colors

A PERFECT MATCH: LIQUID COLORS AND BIOPLASTICS

Plastics made from biological sources are experiencing a veritable boom due to the demand for decarbonization of industry and the reduction of crude oil-based products. Liquid colors can bring many of their advantages to the table when it comes to coloring these products.

Bioplastics can be broadly divided into three groups in terms of materials:

- » **Bio-based plastics, i.e. made with raw materials of natural origin**
- » **Biodegradable and bio-based plastics**
- » **Biodegradable plastics (can be based on fossil raw materials)**

To effectively promote the decarbonization and avoidance of crude oil referred to in the introduction, the minimum requirement is that bio-plastics should be of natural origin. Degradability is currently of secondary importance because, with a few exceptions, bacterial decomposition only occurs under industrial conditions. Municipal waste disposal companies also often refuse to accept plastic bags in organic waste, irrespective of whether they are labeled as degradable. These bags will therefore end up in the „yellow garbage container“ or even in the residual waste.

After the ban on disposable cutlery and straws made from crude oil-based plastics, new biomaterials are constantly being developed for this market. Attractive coloring for product differentiation plays a significant role in this respect. Yet only a few bioplastics manufacturers offer pre-colored compounds and retrospective compounding is usually not practical due to the often thermal sensitivity of the products. Processors of bioplastics must therefore approach masterbatchers with their color requirements and hope that they either have a compatible carrier for precisely that biomaterial in their range or can produce color concentrates based on the same bioplastic. In such cases, thermal pre-damage of the base material during masterbatch production is to be expected, which can have a negative impact on the quality of the end product.

Liquid colors can offer several advantages in this area: All common thermoplastics can be colored with the liquid universal carriers. In order to minimize the fossil content of the end product, ROWASOL offers a special organic carrier system based on purely plant-based raw materials. Additionally, liquid colors are always manufactured at room temperature - this excludes thermal pre-damage and ensures a very low energy input and CO₂ footprint during production (approx. 2-4 %).

To demonstrate the universality of plant-based ROWASOL liquid colors in bioplastics, three different thermoplastic materials of biological origin were processed via injection molding with the same liquid colors and the same dosage (1 %).

In the image below, the granules and platelets based on PLA, cellulose ester and lignin (from left) can be seen without color addition. Three liquid colored platelets are shown above each of them. Different color shades result depending on the color tone of the base material. The visible surface effects are caused by the platelet geometry with 3 mm layer thickness, an unfavorable condition for the materials. Common to all, however, is a very good and uniform coloring with a color addition of only 1 %. Strong color shades can even be achieved using the relatively dark lignin raw material via liquid coloring.



Granules and platelets based on PLA, cellulose ester and lignin

ROWASOL provides feasibility studies in the form of screenings as a service for material manufacturers in order to evaluate possible color ranges. Processors of bio-thermoplastics can, of course, also approach ROWASOL with individual color requirements and request advice from our experts. ■

> More information
 Udo Wilkens
 +49 4101 706 335
 u.wilkens@rowasol.de

LIQUID COLORS

and bioplastics

New development: PG GF10, V-0 compound (ROTEC® PC 7040 GF10 FR) without halogen-containing additives FIRE PROTECTION AND MORE

Plastics must have a specific level of fire resistance for many applications. ROMIRA has succeeded in developing an extremely valuable product innovation in this area: The engineering plastics specialist has developed a V-0 additive package for a PC-GF compound that contains no halogen-containing or SVHC positive listed products. Not only that, the V-0 listing is achieved with a product that flows extremely well, which in turn facilitates efficient injection molding processing.

The PC-GF, V-0 compound refers to a composite material of polycarbonate (and 10% glass fiber reinforcement). This composite material meets the Underwriters Laboratories (UL) 94 standard for fire protection class V-0, which signifies very low flammability as the material is self-extinguishing and flame spread is limited.

In order to achieve fire resistance, suitable additives must be added to plastics that are not inherently resistant - these are all plastics with an oxygen index of less than 40 to 30. They must be environmentally compatible and must not constitute a health hazard, particularly in the event of fire. The latter is determined by the absence of halogens and the negative SVHC listing. In this context, SVHC stands for "substances of very high concern" that are suspected of having negative and long-lasting effects on human health or the environment and that require appropriate safety measures to be taken when being processed.

SVHC substances are announced on REACH candidate list or SVHC list. If such a substance is used or used in mixtures and products, there are extensive information obligations for manufacturers and suppliers as well as a right to information for downstream users and consumers.

The standard products on the market comprise halogen-containing substances and / or substances with an SVHC listing. ROMIRA now has an attractive alternative: ROTEC® PC 7040 GF10 FR not only features a non-hazardous, environmentally friendly flame retardant and excellent impact strength, but can also be processed at lower temperatures between 260 and 280 °C while maintaining the same flow properties. This gentle processing at low temperatures has the advantage of lower energy consumption and the products manufactured in this manner exhibit greater color stability.

| TEST PARAMETERS | ROTEC® PC 7040 GF10 FR | COMPETITION MATERIAL |
|---|------------------------|----------------------|
| Notched Impact Strength (Charpy), kJ/m ² | 14 | 15 |
| Impact Strength (Charpy), kJ/m ² | no break | no break |
| MFR (260 °C/5 Kg), g/10 min | 13 | 3 |
| MFR (300 °C/ 1,2 kg), g/10 min | | 7 |
| Vicat, °C | 143 | 145 |
| UL94 at 1,5 mmV-0 | V-0 | |
| Tensile Modulus, MPa | 3500 | 3800 |
| Tensile Strength, MPa | 55 | 60 |
| Elongation at break, % | 14 | 15 |
| SVHC List / ECHA | No / No | Yes / Yes |
| Melt temperature, °C | 260 - 280 | 320 - 340 |

Comparison table: ROTEC® PC 7040 GF10 FR and competitor material

These properties all combine to make the PC-GF, V-0 compound particularly suitable for applications where fire protection requirements, mechanical strength and high impact resistance are essential, resulting in a wide range of applications, including:

Electrical and electronic housings

Its UL V-0 rating and glass fiber reinforcement make ROTEC® PC 7040 GF10 FR ideal for the manufacture of electrical and electronic housings, panels and components. It features both mechanical strength and fire protection, which are essential in such applications.

Automotive industry

ROTEC® PC 7040 GF10 FR can be effectively used in the automotive industry, particularly for applications that must satisfy fire protection requirements. Some examples are interior trim, components for vehicle interiors and electrical components.

Industrial applications

ROTEC® PC 7040 GF10 FR's glass fiber reinforcement suitable for a variety of industrial applications, this potentially includes, for example, the manufacture of housings, protective covers, components and trim in which both strength and fire protection are paramount. ■



More information

Dr. Milena Pöhlmann
+49 4101 706 376
m.pohlmann@romira.de



UPDATE ON DRINKING WATER APPROVAL KTW-BWGL



In ROWAnews issue 1, 2021 we reported on the regulatory change regarding the issue of drinking water approvals. The new evaluation criteria document for plastics and other organic materials in contact with drinking water (KTW-BWGL) has officially been in force since March 21, 2021 in accordance with § 17 para. 3 of the German Drinking Water Ordinance (Trinkwasserverordnung (TrinkwV)).

The original extended UBA transition date of March 21, 2023, was prolonged due to the impact of the COVID 19 pandemic, which prevented the certification bodies from conclusively processing all applications. Therefore, the transition letters issued to date have been extended to September 21, 2024.

Meanwhile, the P2 testing according to KTW-BWGL of our compounds could be fully completed, meaning that the letters of conformity are now officially available. These also include the microbiological test according to DIN EN 14621. These are valid up to **April 2028**. ■



| LURANYL® TW GRADE OVERVIEW | CERTIFIED ACCORDING TO |
|--------------------------------|------------------------|
| LURANYL® KR 2402 TW 35061 | KTW-BWGL, WRAS, ACS |
| LURANYL® KR 2403 G2 TW Natural | KTW-BWGL |
| LURANYL® KR 2403 G2 TW 26343 | KTW-BWGL |
| LURANYL® KR 2403 G4 TW Natural | KTW-BWGL |
| LURANYL® KR 2403 G4 TW 26343 | KTW-BWGL, WRAS, ACS |
| LURANYL® KR 2403 G6 TW Natural | KTW-BWGL |
| LURANYL® KR 2403 G6 TW 26343 | KTW-BWGL, WRAS, ACS |
| LURANYL® KR 2403 G4 W1298 | NSF |

> More information
Michael Kim
+49 4101 706 359
sl.kim@romira.de

RESEARCH & DEVELOPMENT

ROWA GROUP

COMPLETELY STATE-OF-THE-ART

HIGH PERFORMANCE ADDITIVES AND TECHNICAL PLASTICS



News from USA: SUCCESSFUL INNOVATIONS

TRUCKS AT THEIR BEST

ROTEC® AC-MA grades are widely used in high gloss applications in deep black and other colors including new metallic colors for many automotive OEM. ROWA Inc. worked together with ROMIRA's technical team automotive experts, to develop a low gloss AC-MA material for cap stock truck fender extension applications of a well known PMMA producer and automotive, aftermarket supplier for OEM truck fender applications.

Our ROTEC® AC-MA experimental grade was successful in co-extrusion and thermoforming applications that the PMMA producer and the automotive supplier are

looking to change other applications over to AC-MA grades.

SIGN LIGHTING AT ITS BEST

Neon Lighting was standard for many years in different lighting sign applications. Due to fragile nature of the glass and high maintenance costs the in combination with neon gas, many sign lighting applications have been converted to LED lighting.

ROWA Inc. worked with GE Current to develop a UL 94 HB registered grade of light diffused LED lighting to replace neon lighting. ROWA developed a ROTEC® ASA EXP

grade in multiple colors that defuse LED lighting, retain the light output and extruded profiles can be heated and shaped to different configurations in order to mimic the appearance of neon lighting shapes. ■

> More information

Dave Baglia
+1 609 567 8600
dave.baglia@rowainc.net



ROWALACK

Now also available as water-based lacquers

ROWALID® TIM: EFFECT LACQUERS FOR COATED FABRICS

A large number of products from the ROWAKRYL®, ROWATHAL®, ROWAFLO® and ROWANYL® ranges are already available in water-based form, for applications in the fields of tarpaulins, printed media or (foam) synthetic leather, for example. In addition, ROWA Lack now also offers high-quality water-based metallic effect lacquers from the ROWALID® TIM range.

The ROWALID® TIM product group from the comprehensive ROWA Lack range is an excellent extension of the standard portfolio whenever high-quality metallic effects are to be achieved, e.g. on PVC-coated fabric. Silver-colored effects are required for most applications, but gold tones can also be made possible. This requires formulating the lacquers on the basis of specifically selected binders and effect pigments in order to achieve an excellent result after the lacquering process in terms of color tone, opacity, brilliance, surface texture and gloss. Gray or yellow or orange colored base materials are usually used to enhance the silver or gold effect.

New water-based lacquer systems have now been developed in addition to the established

solvent-based and, on request, SVHC-free products such as ROWALID® TIM 95221.

ROWALID® TIM 95371W, for example, is a silver-colored variant based on a water-based standard tarpaulin lacquer. The also silver-colored new product ROWALID® TIM 95400W is based on a higher-quality fluoropolymer lacquer and is consequently suitable for more demanding applications.



HIGH-QUALITY METAL EFFECTS

The solvent-based as well as the water-based ROWALID® TIM effect lacquer systems can both be individually optimized to meet a wide range of properties, depending on the customer's requirements. Generally, all lacquers belonging to the ROWALID® TIM product group already provide low soiling tendency and excellent cleaning characteristics. Please contact our sales staff for current product information and samples. ■

> More information

Dr. Dennis Stoltenberg
+49 4101 706 189
d.stoltenberg@rowa-lack.de

ROWALID®

Effect lacquers

STRUCTURAL FOAM MOLDING (SFM) WITH CHEMICAL FOAMING AGENT SYSTEMS FROM TRAMACO

Structural foam molding (SFM for short) is a special process in the field of injection molding. In this process the thermoplastic is foamed in the cavity by adding a foaming agent or blowing agent to the polymer in the injection molding machine. In injection molding, foaming agents are used to avoid sink marks, to produce thick-walled molded parts and/or to save weight. SFM is possible in a wide range of polymers and thus offers diverse application possibilities.

THESE ARE THE MAIN ADVANTAGES OF FOAMING THERMOPLASTICS:

➤ ADVANTAGES OF SFM COMPONENTS:

- » weight reduction
- » reduction of sink marks
- » lower tendency for warpage
- » increased stiffness

➤ ADVANTAGES OF THE SFM PROCESS:

- » lower clamping force required
- » shorter cycle times
(depending on the wall thickness of the component)
- » reduced melt viscosity
- » lower or no holding pressure
- » lower melt and mold temperatures
- » extension of the possible flow path length

To achieve the desired results it is sufficient to add the foaming agent to the plastic granules in small dosages (usually 0.5 - 3%). The chemical foaming agent can either be pre-blended with the plastic pellets or – even better – added with a separate dosing unit.

Under the brand name TRACEL® TRAMACO develops, produces and supplies chemical, endothermic and exothermic foaming and nucleating agents as well as microspheres. TRAMACO's product portfolio is rounded off by other additives such as slip and mold release agents (TRASIL and TRASLIP), antistatics (TRAPOR and TRASTATIC) and UV stabilizers (TRASTAB). ■

Meet the TRAMACO specialists at Fakuma and learn more about the possible applications and advantages of chemical foaming agent systems in your products!

➤ **More information**
Niels Neumann
+49 4101 706 288
n.neumann@tramaco.de

New from TRAMACO

UNICELL HMS EXPANDED MICROSPHERES AS ULTRA-LIGHTWEIGHT FILLERS



In addition to its range of UNICELL chemical foaming agents and UNICEL MS expandable microspheres, TRAMACO now also offers pre-expanded microspheres as ultra-lightweight fillers under the name UNICELL HMS.

With densities between 20 kg/m³ up to 150 kg/m³ and average particle sizes between 15 µm and 150 µm, the new product line covers a wide range of applications. UNICELL HMS grades can e.g. be used as fillers in thermal insulation paints, coatings, putties, thermosets and in the finishing process of natural and artificial leathers.

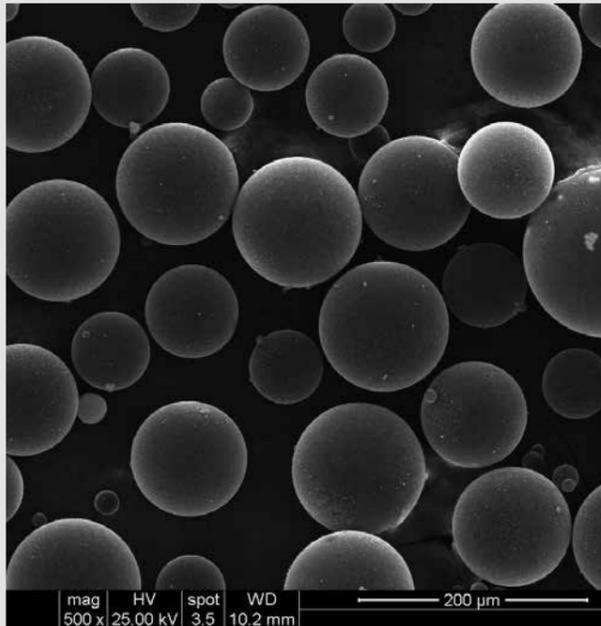
The closed cell structure and elasticity of UNICELL HMS grades provide excellent lightweight and thermal insulation properties to many products. ■

For further information, please contact TRAMACO's Technical Service.

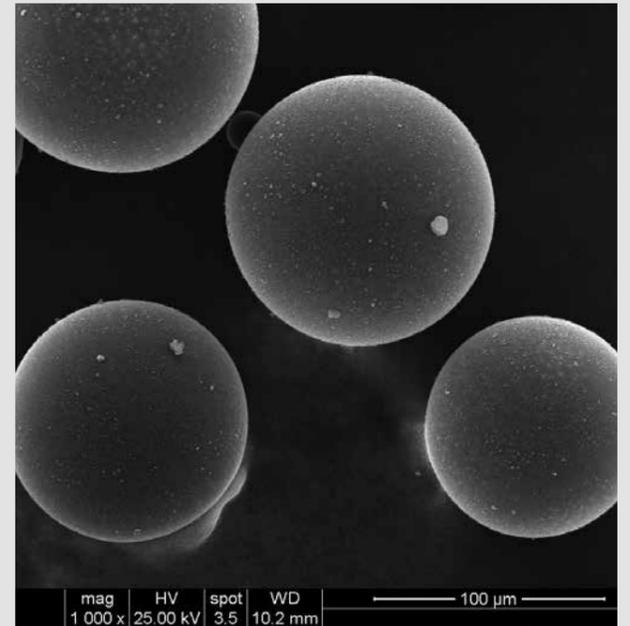


More information

Stefan Schneider
+49 4101 706 120
s.schneider@tramaco.de



Microspheres UNICELL HMS under the electron microscope at 500 x magnification



Microspheres UNICELL HMS under the electron microscope at 1000 x magnification

For sophisticated applications:

THE INNOVATIVE ADHESION PROMOTER SYSTEM TRAPYLEN® 118 S



As a leading producer of primer, adhesion promoter and chemical foaming agent systems TRAMACO once again scored a product coup: The trial product TRAPYLEN® 118 S is a pioneering adhesion promoter especially developed to optimize the adhesion on polyolefin plastics, particularly for applications in which the use of aromatic solvents must be avoided.

TRAPYLEN® 118 S is a chemically modified, crosslinkable polypropylene in form of light yellow granules. Outstanding properties of this product are:

- » Chlorine content of the polymer: 35 %
- » Viscosity (dyn.): approx. 1200 mPas (35 % in Acetone/n-Butyl Acetate 50:50)
- » Softening point: 75 C°

TRAPYLEN® 118 S forms a clear transparent film onto the substrate, which allows a superb adhesion between the plastic's surface and the subsequent layers such as lacquers, adhesives or printing inks. Main application fields are coating, bonding, printing and lamination of moulded parts and weatherstrips in automotive engineering as bumpers, protective strips and door sealings as well as adhesion and flocking of sea-

ling profiles in industrial applications for subsequent processing of PP-based plastics.

The good solubility of TRAPYLEN® 118 S in various solvents opens up new possibilities for users who want or have to avoid the usage of aromatic hydrocarbon solvents. Furthermore TRAPYLEN® 118 S may be combined with polyisocyanates on the base of HDI or TDI to achieve better chemical and hydrolysis resistance of the formed film.

The product launch of TRAPYLEN® 118 S emphasises TRAMACO's continuous commitment for innovation and development of high-class adhesion promoter solutions for the plastics industry. For further information on TRAPYLEN® 118 S and TRAMACO's product portfolio please contact our technical support. ■

TRAMACO will be happy to help you optimize your products specifically for your application.



More information

Tom Janocha
+49 4101 706 02
primer@tramaco.de



50 YEARS OF COMPETENCE, INNOVATION AND HANSEATIC ENTREPRENEURIAL SPIRIT – TRAMACO CELEBRATES ITS 50TH COMPANY ANNIVERSARY

Having started as a distributor of chemical specialties, today TRAMACO's main business focus is on the own production. The company is characterized by a wide range of high-quality products tailored to individual requirements and competent technical service, making it a reliable partner for anyone requiring chemical foaming agents, primers and additives.

With a profound specialist knowledge, extensive market know-how and a good portion of entrepreneurial courage, the chemical engineer Joachim Mrositzki and the chemist Dr. Walter Marx founded TRAMACO (TRAding and MAnufacturing COmpany) in Hamburg-Ottensen in 1973.

In the early years the product portfolio comprised chemical foaming agents, primers, tackifier resins and waxes. The customers were not left alone to face the challenges and complexities of the products, but received competent technical support, and so the "Start-Up" TRAMACO soon became well-established in the market.

In 1979, a cooperation with ROWA was started, which allowed TRAMACO to build up its own production. In 1990 ROWA and TRAMACO moved to Pinneberg in Schleswig-Holstein and thereby created the space necessary for expanding their research and production capacities.

In the mid-2010s it became apparent that the Pinneberg ROWA GROUP site could not offer further growth capacities for the resident enterprises. Thus, TRAMACO bought an area in Tornesch only a few kilometres away from Pinneberg and moved there in 2018.

Today, half a century after its foundation, about 45 employees are working at the current headquarters, where a large portion of the products are produced. Apart from that, TRAMACO is continuing to use production capacities and services of the ROWA GROUP locations.

The actual product portfolio concentrates on foaming agents, primers and additives, which are mainly used in plastics and rubber processing and the paint and printing ink industries.

In addition to TRAMACO's own products, selected raw materials of long-term business partners complete the product portfolio.



The customers in more than 65 countries worldwide appreciate the individual technical support, customized product development and reliable supply with sophisticated chemical specialties provided by the TRAMACO team also in times of tense supply chains.

With a wide product range contributing to sustainability in many applications and a continuous adaptation to new requirements, TRAMACO as a "Best Ager" is well positioned for the future. ■

ROWA GROUP

2023





2024

| | | | |
|---|---|--|---|
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">OCT</div> |  | <p>OCTOBER 17 - 21, 2023 FRIEDRICHSHAFEN, HALL B1, STAND 1212, ROWA GROUP</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">APR</div> |
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">NOV</div> |  | <p>NOVEMBER 22 - 25, 2023 ISTANBUL, HALL 2, STAND 216A, ROMIRA</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">MAY</div> |
| <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">DEC</div> |  | <p>DECEMBER 05 - 07, 2023 STUTT GART, HALL 3, STAND 2016, ROMIRA</p> | <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">JUN</div> |
| | | <p>APRIL 23 - 26, 2024 FRANKFURT/MAIN, ROWA Lack and TRAMACO</p> |  |
| | | <p>MAY 14 - 16, 2024 RHEDA-WIEDENBRÜCK, ROMIRA, ROWASOL, ROWA Masterbatch</p> |  |
| | | <p>JUNE 19 - 20, 2024 MANNHEIM, ROMIRA</p> |  |



STAY TUNED!

You enjoyed reading this and would like to stay at the ROWA GROUP ball? No problem, just scan the QR code on the left or send us an email to: subscribe@rowa-group.com - we will be happy to add you to our distribution list. By the way: On our website rowa-group.com you will find all recent issues of ROWAnews in the online version. And you can also find exciting news from the companies on our LinkedIn channels. Follow us!

LinkedIn



For reasons of better readability, the masculine form is used for personal designations and personal nouns. Corresponding terms apply in principle to all genders for the purpose of equal treatment. The abbreviated form of language is for editorial reasons only and does not imply any valuation.

| | | | | | | | | |
|---|--|---|--|--|---|---|--|--|
| ROWA Masterbatch GmbH Siemensstraße 1-3 25421 Pinneberg Phone: +49 4101 706 01 info@rowa-masterbatch.de www.rowa-masterbatch.de | TRAMACO GmbH Lise-Meitner-Allee 8 25436 Tornesch Phone: +49 4101 706 02 info@tramaco.de www.tramaco.de | ROMIRA GmbH Siemensstraße 1-3 25421 Pinneberg Phone: +49 4101 706 03 info@romira.de www.romira.de | ROWASOL GmbH Siemensstraße 1-5 25421 Pinneberg Phone: +49 4101 706 04 info@rowasol.de www.rowasol.de | ROWA Lack GmbH Siemensstraße 1-5 25421 Pinneberg Phone: +49 4101 706 05 info@rowa-lack.de www.rowa-lack.de | ROWA France S.a.r.L 7, rue Albert Einstein 77420 Champs sur Marne Phone: +33 1 646 81 616 info@rowa-france.com | ROWA Inc. 110 Phyllis Dr Croydon, PA 19021 USA Phone: +1 609 567 8600 sales@rowainc.net www.rowainc.net | ROWA Korea Co., Ltd 511-16, Joogyo-Ri, Yesan Yeop Yesan-Gun, Chungnam-Do Phone: +82 41 335 42 03 info@rowa-korea.com | Ningbo ROWA Coatings Technology Co., Ltd Rm.1218, Block A2, R&D Park, Lane 587, Juxian Rd, Hi-Tech Zone, Ningbo City Zhejiang Province, P.R.China Phone: +86 574 87229282 info@rowa-china.com |
|---|--|---|--|--|---|---|--|--|