

# ROWA news

NEWS FROM ROWA GROUP



Ladies and gentlemen,

“The only constant is change” – today, it’s truer than ever, and the pace of change keeps picking up. For many of you – our readers, customers, and future business partners – it is doubtless very important to be able to rely on us. Yesterday, today, and tomorrow.

And we’re investing in tomorrow, with the sound judgement and specialist knowledge of our experienced staff. Our focus is on new technologies and improved production processes. ROWA GROUP is not only investing in the so-called “software and hardware” – we are investing in additional production capacity, especially at our German locations.

With these investments, the ROWA GROUP is growing with the capabilities and requirements of our partners, but we are also doing more. Through technological advances, the companies of our group hope to establish a position of strength from which we can prevail in any business cycle.

Current business reporting has much to say about the extreme dynamism of markets in the Far East. However, our future will be decided here at home – because here is where we have the worldwide technology leadership. And this technology leadership is the foundation for our success in global competition. With it, we hope to offer lasting added value to our partners in the realisation of our ambitious technological objectives.

We look forward to the future and its constant change – and always with you at our side.

Sincerely yours  
Arne Höck



ROWALACK

## Tramaco and ROWA Lack at the ECS 2011



Shared fair booth of Tramaco GmbH and ROWA Lack GmbH at the European Coatings SHOW 2011

Tramaco GmbH and ROWA Lack GmbH, both members of the ROWA Group, are starting the exhibition year 2011 with the European Coatings SHOW (ECS) from 29th to 31st March in Nuremberg. In Hall 9, booth 105, Tramaco and ROWA Lack will present their product range. The focus is on adhesion promoters for paints, lacquers, printing inks and adhesives.

### Tramaco products at the ECS booth

With its TRAPUR® and TRAPYLEN® brands, Tramaco has been Europe’s leading manufacturer of adhesion promoters and primers for difficult-to-paint plastic surfaces for 35 years now. Tramaco can almost always provide a solution for each of the countless applications for modified polyolefins. Hence TRAPYLEN® is one of the most common adhesion promoters in painting plastics. If outstanding adhesion of the coating is required, chlorinated polyolefins (CPOs) are suitable. In addition to its well known product lines, Tramaco will also be presenting newly developed acrylic-modified polyolefins at the ECS. Known as APOs, these grades are suitable in many applications if halogen-free coatings are required.

### ROWA Lack products at the ECS booth

ROWA Lack GmbH manufactures specialty products for the plastics processing industry. Its focus is on acrylate, polyurethane and fluoropolymer lacquers, both solvent-based and aqueous, for the surface finishing of PVC tarpaulins, PVC and synthetic leathers, and substrate-free foils based on PVC and TPO. The portfolio is augmented by a wide range of lacquer additives and modifying agents, such as concentrates for a matt finish, wetting agents, UV protection agents, slipping and anti-locking additives.



The exhibition centre Nuremberg hosts the 2011 ECS

Visit Tramaco and ROWA Lack at the show and take a look at the wide range of innovations. Our specialists are looking forward to welcoming you to present our products and to work out a solution for your particular application in a personal discussion.

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ROWA GROUP

### The ROWA GROUP at 2011 trade fairs



**European Coatings SHOW**  
Tramaco / ROWA Lack  
Nuremberg  
Hall 9 at booth 105  
29 – 31 March 2011



**VDI Conference**  
Plastics in automobile engineering  
ROMIRA / ROWA Masterbatch  
Mannheim  
Booth 16  
6 – 7 April 2011



**PLASTTECHNIK**  
Tramaco / ROWASOL  
/ Kemi Interessen  
Malmö, Sweden  
Hall 1 at booth E11  
4 – 5 May 2011



**Techtextil**  
ROWA Lack / Tramaco  
Frankfurt  
Hall 3.0 at booth F53  
24 – 26 May 2011



**FAKUMA**  
ROWA GROUP  
Friedrichshafen  
Hall B1 at booth 1212  
18 – 22 October 2011

Why not take these opportunities to meet the ROWA GROUP at trade fairs this year and get the latest news on our products.

## ROWA GROUP – Restructuring is complete

What began with the long expansion of the ROWA GROUP was formally, and legally, concluded on 1 October 2010.



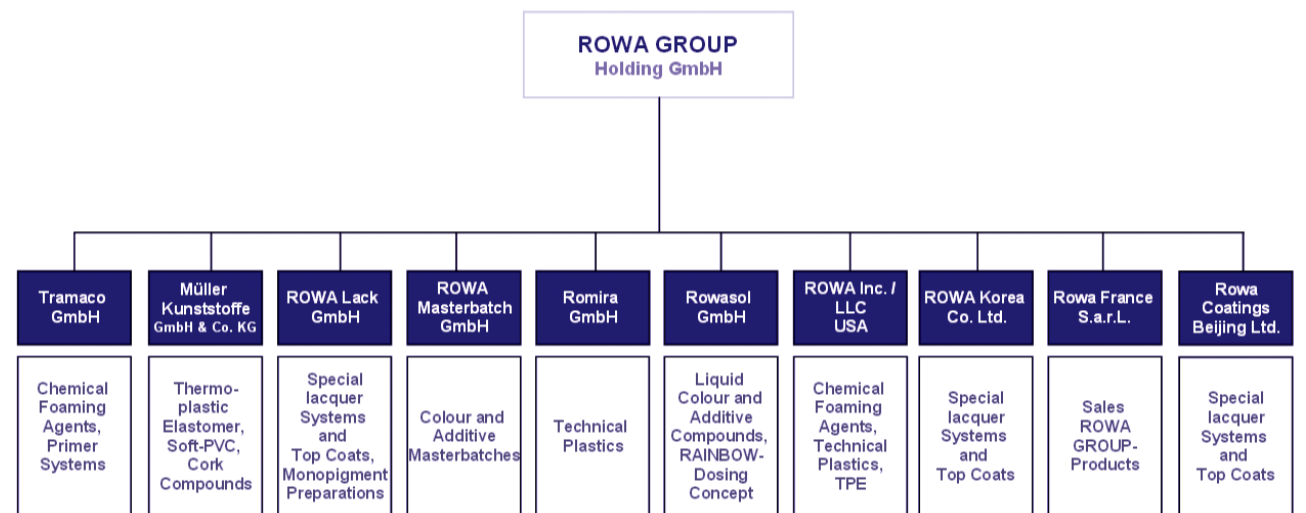
The advantages for our business partners are clear: dedicated contact persons for all matters, very economical joint

use of resources, and the stability and security of a successful company group which has grown up over a half a century.

ROWA has been renamed the ROWA GROUP Holding GmbH, and provides support to the operative service companies. At the same time, ROWA Lack GmbH and ROWA Masterbatch GmbH were newly formed. These two companies will focus on the lacquer and masterbatch business areas respectively. Now all ROWA GROUP companies are supported by a holding company and can concentrate entirely on their core businesses.

With this, we are setting standards together: for the benefit of our customers and for a long-term future that will benefit all who are part of our business.

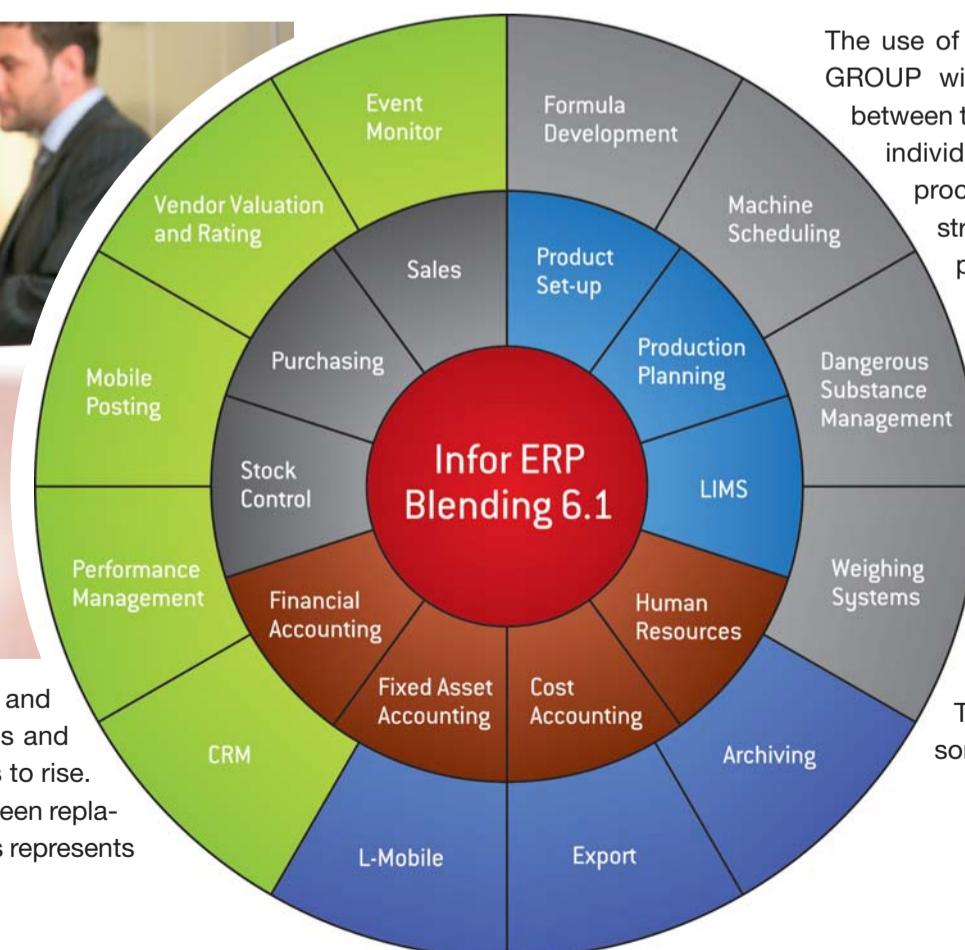
The ROWA GROUP: strong partners for technical plastics, foaming agents, lacquer systems and high-performance additives.



## ROWA GROUP's new Blending software



The need for IT-based order processing and materials management by the companies and divisions of the ROWA GROUP continues to rise. To meet this need, the old systems have been replaced by the new Blending 6.1 solution. This represents a great simplification.



The use of a common software across the ROWA GROUP will also allow other synergistic effects between the group companies. But even within the individual companies, it makes optimised processes possible. The software shows its strengths right from the production planning phase.

Blending 6.1 is supplied by the Infor company. Infor has amply demonstrated its industry expertise and flexibility, and meets all requirements of the ROWA GROUP. The company has many references from the masterbatch and compounder industry, including the successful use of the software by a ROWA GROUP subsidiary, Müller Kunststoffe in Lichtenfels, Germany. There, the system has been in use for some time with excellent results.



The Tramaco product TRAPYLEN® is used by the automotive industry

## TRAPYLEN®: New primer and adhesion promoter systems

Tramaco GmbH actually presents new TRAPYLEN® products. Three new primer and adhesion promoter systems are available from now on for your needs.

### TRAPYLEN® 5590 UV

For a long time Tramaco offers adhesion promoters for UV-curable coatings. This product line is used to improve adhesion of UV-coatings onto polyolefinic plastics. From now on the Northern German company offers TRAPYLEN® 5590 UV, a product that provides very good adhesion strength onto polypropylene (PP) and good compatibility with many UV oligomers.

So TRAPYLEN® 5590 UV can be incorporated as an additive into many coatings.

Tramaco's R&D-chemists are recommending a dosage in range of 4 – 10 per cent. In this concentration usually good adhesion strength onto polyolefins is obtained without effecting the surface properties of the UV-coat.

### TRAPYLEN® 911 S

A further development of the known grades of chlorine-free acrylic-modified polyolefin (APO) product line is the new solid resin TRAPYLEN® 911 S.



TRAPYLEN 5590 UV: excellent processing properties thanks to a low viscosity

TRAPYLEN® 911 S is an APO for usage in solvent-based systems. This blocking-free product offers very good adhesion onto polyolefinic plastics and excellent solubility in aromatics. In Xylene for example stable resin solutions with a solids content up to 20 per cent can be produced for formulating chlorine-free primer systems or coatings with higher solids.

### TRAPYLEN® 139 S

The newly developed acrylic-modified CPO solid resin TRAPYLEN® 139 S offers very good adhesion onto untreated polyolefinic plastics. Due to the combination of low chlorine content and acrylic modification excellent hydrolysis resistance can be obtained. TRAPYLEN® 139 S is easy soluble in aromatics.

With a maximum solubility of 30 per cent in xylene TRAPYLEN® 139 S is ideal as an adhesion-additive for solvent-based coatings or as a raw material for formulating adhesion promoters.

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## Azodicarbonamide registered with the ECHA

Right on time on 30 November 2010, Tramaco GmbH registered the basic chemical foaming agent azodicarbonamide (CAS no. 123-77-3) with the European Chemicals Agency (ECHA) in Helsinki. Azodicarbonamide is one of the most important raw materials for foaming plastics and rubber.

**REACH**

With the registration number granted by REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) it is secured that Tramaco can continue to import azodicarbonamide into the EU and also safeguard regular supplies and planning reliability for all Tramaco customers.

Tramaco uses azodicarbonamide as a major ingredient in the production of many TRACEL foaming agent preparations and masterbatches.

The registration number can be found in the respective safety data sheets.

Labelling of packing units will also be changed to conform with the current CLP rules (Regulation on Classification, Labelling and Packaging of Substances and Mixtures).

With the REACH registration, Tramaco has further strengthened its position as a leading manufacturer of foaming agent preparations and distributor of basic chemical foaming agents.



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## ROWA Lack goes China

The Chinese economy continues to grow. The ROWA GROUP has long been monitoring this boom. ROWA Lack GmbH in particular has enjoyed success on the Chinese market for over ten years with lacquer systems for coated textiles. This was formerly done via a cooperative agreement with a Chinese trade representative. In response to the steady growth of the Chinese business, and to improve our customer support there, the ROWA GROUP has now set up an official subsidiary in China, ROWA Coatings.



Coatings permits even better, more personal, and more responsive support of our Chinese customers.

Our Chinese subsidiary will be led by Helen Li, who has successfully represented the interests of ROWA Lack in China for years. This ensures continuity in our business relationships in Asia.

Plans call for ROWA Coatings to begin operations in the second quarter of 2011.

Headquartered in Beijing, ROWA Coatings' function initially will be to grow the business of ROWA Lack in China and boost the ROWA brand presence.

In addition to this clear positioning, it will enable ROWA Lack to boost service quality in China. ROWA

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## ROWALID Pigment Preparations

After completion of the strategic reorientation of the ROWALID Pigment Preparations business unit in fiscal 2010, ROWA Lack GmbH is continuing to expand its product line. These highly concentrated colour

concept focusing on sales activities and the optimisation of processes.

Long-term values are fundamental to ROWA Lack, and form the basis for robust strategies. We offer customers standardised, high-quality products, uniform processes, well-educated specialists and a comprehensive quality management system per DIN ISO 9001 and ISO 14001.

**Standard product range available**

For ROWA Lack, quality and flexibility are a high priority. To provide them, the company has a range of high-quality standard products it can draw on immediately.

The product range includes not only different colours, but also different synthetic resins (PVC and acrylate) as vehicles.

Together with our customers, and based on their requirements, we also develop project-specific special formulations.

On request we will be glad to send extensive information about this product series. It is also available for PDF download at [www.rowa-lack.de](http://www.rowa-lack.de).



dispersions represent a range of product types which cover a large number of typical applications.

**Reorientation completed**

In order to offer customers a high level of service and product quality, as part of the reorientation of the ROWALID Pigment Preparations business unit, the prerequisites for successful market support were put in place.

The way was smoothed by a comprehensive status analysis. The next step was the creation of a target







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**Standard range of ROWALID pigment preparations**







**ROWALID - PVC**

Micro disperse pigment preparations with 40 to 50 % mono pigmentation and a PVC copolymer carrier system

	ROWALID PPW 9	Pigment white 6
	ROWALID PPK 168	Pigment black 7
	ROWALID PPY 4013 ROWALID PPY 4018 ROWALID PPY 4019	Pigment yellow 93 Pigment yellow 83 Pigment yellow 110
	ROWALID PPR 202 ROWALID PPR 203 ROWALID PPR 2089	Pigment red 166 Pigment red 144 Pigment violet 19
	ROWALID PPG 620	Pigment green 7
	ROWALID PPB 302 ROWALID PPB 304 ROWALID PPB 317 ROWALID PPB 351	Pigment violet 23 Pigment blue 15:3 Pigment blue 15:1 Pigment blue 13

**ROWALID - ACN**

Micro disperse pigment preparations with 40 to 50 % mono pigmentation and an acrylate carrier system

	ROWALID PPW 46 ACN	Pigment white 6
	ROWALID PPK 1056 ACN	Pigment black 7
	ROWALID PPY 4032 ACN ROWALID PPY 4040 ACN ROWALID PPY 4017 ACN	Pigment yellow 83 Pigment yellow 150 Solvent yellow 93
	ROWALID PPO 517 ACN	Solvent orange 47
	ROWALID PPR 2058 ACN ROWALID PPR 2046 ACN ROWALID PPR 2072 ACN	Pigment red 144 Solvent red 195 Solvent red 111
	ROWALID PPB 3003 ACN	Pigment blue 15:1

## New trade partnership for the Eastern European market



The Forplast sales region is marked yellow

Müller Kunststoffe is increasing its activities in the Eastern European and Russian markets, with the goal of building a solid and growing positioning in this dynamic, expanding area.

To do this most effectively, Müller Kunststoffe is looking to new local partnerships. The intention is to systematically open these markets, together with the trade agency Forplast.

Forplast, located in Riga, Latvia, will handle the acquisition of new customers, various marketing activities, and on-site logistics and handling. Technical customer

service and consulting will be done in close cooperation with Müller Kunststoffe. New customers in these areas will benefit from the familiar high service quality and comprehensive technical consulting.

Under the trade names Lifoflex and Lifolit, Forplast markets high-quality Müller Kunststoffe TPE and soft PVC compounds in Russia, Ukraine, Belarus and the Baltics (Latvia, Estonia, Lithuania).

The first task was optimisation of the logistics. The great distances and possibility of customs issues made it necessary to create a reliable, functioning logistics system. With this improvement, customers now enjoy fast, reliable deliveries from Germany.

In order to make it easier for interested parties to get the most important information, the website [www.mueller-kunststoffe.com](http://www.mueller-kunststoffe.com) is now available in Russian as well.

“Given the cultural and linguistic differences, it is important to have a local partner,” said Michael Fischer, Müller Kunststoffe Sales Director. “This region will be important for our future. With our partner Forplast, we want to make Lifoflex and Lifolit known and gain more market share here.”

In doing so, Müller Kunststoffe is strengthening its efforts to become a global supplier of high quality TPE and soft PVC compounds.



Denis Yanit and Denis Fedorov

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## New halogen-free, flame-resistant TPE for the construction industry

Müller Kunststoffe has produced flame-resistant, halogen-free Lifoflex TPE compounds for several years, and they are well-established in the market. The UL94 test method gives these flame-resistant compounds a VO flammability classification at a minimum sample thickness of 3.0 or 1.6 millimetres. The two standard series, Lifoflex UV FLAM 600 (UL 94 V0 at 3.0 millimetres) and Lifoflex UV FLAM 700 (UL94 V0 at 1.6 millimetres), were presented for the first time at the 2010 K-Show, and met with great interest from visitors. In addition to excellent flame



resistance, these series have notably improved processing qualities for extrusion and injection moulding applications.

Due to the steadily rising demand, a new special flame-resistant Lifoflex line has been developed for the construction industry. In construction, products must meet the DIN 4102-1 standard on the fire behaviour of materials and components. The new halogen-free Lifoflex products correspond to construction materials class B2 with a minimum sample thickness of 1.6 mm. These special variants of the halogen-free flame-resistant Lifoflex series have better mechanical properties and even further simplified processing.

The new Lifoflex UV FLAM materials can be processed by injection moulding as well as extrusion. This gives them a wide range of applications. Their good adhesion to PP also lets 2-component structures be produced. A typical application for this are cavity wall sockets, where the very thin walls of TPEs are a problem. Lifoflex UV FLAM can pass the glow-wire test and provide sealing to the PP housing. In extrusion the main applications



The new Lifoflex UV FLAM material is well suited for applications inside of public buildings

are profiles for interiors of buildings, for example ceiling wainscoting, profiles for heating installations and sealing profiles for walls.

Combined flame-resistant, electrically conductive and adhesion-modified types for various thermoplastics are also possible, giving a much broader range of applications.

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## Innovative expertise in fire protection



Romiloy PC/ABS blends are installed in technical devices

line PBT greatly increases their chemical resistance and heat distortion temperature, and improves the surface characteristics of finished items, especially with the glass fiber-reinforced compounds. The polycarbonate content reduces warpage and mould shrinkage, and allows an easier processing than compounds based purely on PBT. In addition, the new Romiloy blends have very good scratch resistance.

Compared to the flame-retardant PC/ABS FR blends, the semi-crystalline PC/PBT moulding compounds have significantly better stress crack and chemical resistance. PC/ABS blends are not resistant to food oils or highly alkaline cleaning agents. Test specimen of PC/ABS FR V0 begin to crack or break after only short immersion times in these agents.

The picture to the right shows the resistance to olive oil of Romiloy PC/PBT EXP 1950 and a PC/ABS FR material. Here again the better chemical resistance of PC/PBT blends is clearly evident.

These tests show that the new Romiloy PC-PBT FR-based product range is especially suitable for uses where housings and parts are subject to frequent cleaning, such as medical instruments and devices.



Clamped Charpy bars after immersion in olive oil, left: PC/ABS FR right: PC/PBT FR (EXP 1950)

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The many uses of plastics have made them a firm part of daily life. Flame-retardant materials are becoming ever more important in the electrical and electronics technology, transportation, construction and furniture industries. Manufacturers of electrical devices as well as consumer and industrial electronics must comply with an increasing number of standards and international regulations. These in turn are driven by rising safety demands in the operation of electrical devices. For plastics manufacturers, this makes it a challenge to design new materials that meet these demanding profiles.

With the PC/PBT blends Romiloy EXP1950 (non-reinforced), Romiloy EXP2047 and EXP2088 – both glass fiber reinforced – ROMIRA has extended its range of halogen-free flame-retardant materials. These include the existing RoHS and WEEE-compliant Romiloy PC/ABS blends with different flame-retardant systems.

The new PC/PBT blends meet the flame class V0 per UL 94 down to 1.5 mm. The addition of partially crystal-

Properties	Unit of measure	Test method	Test condition	EXP 1950	EXP 2047	EXP 2088
Tensile modulus	MPa	DIN EN ISO 527	23 °C 1 mm/min	3000	6.590	11000
Tensile strength	MPa	DIN EN ISO 527	23 °C 50 / 5 mm/min	50	108	115
Elongation at break	Prozent	DIN EN ISO 527	23 °C 50 / 5 mm/min	25	5,2	3,5
Flexural strength	MPa	ISO 178	23 °C 2 mm/min	84	163	170
Notched Charpy impact strength	kJ/m <sup>2</sup>	ISO 179/1eA	80 x 10 x 4 mm 23 °C	10	5	5
Charpy impact strength	kJ/m <sup>2</sup>	ISO 179/1eA	80 x 10 x 4 mm 23 °C	No break	40	35
Density	g/cm <sup>3</sup>	ISO 1183	23 °C, 50 % RH	1,28	1,44	1,60
Heat distortion temperature HDT A	°C	DIN EN ISO 75-2	80 x 10 x 4 mm 1,80 MPa	87	110	164
Heat distortion temperature HDT B	°C	DIN EN ISO 75-2	80 x 10 x 4 mm 0,45 MPa	108	185	190
Flammability	Klasse	UL94	1,5 mm	V0	V0	V0

Properties of Romiloy PC/PBT FR (EXP1950), PC/PBT GF20 FR (EXP2047) und PC/PBT GF30 FR (EXP2088)

## Surface design on demand – Rotec ASA in matt and gloss finish

Acrylonitrile-styrene-acrylicester (ASA) copolymers have good weathering resistance, heat distortion temperature and toughness. These materials are used more and more frequently in construction and in the electrical and automotive industries.

However, different applications have different needs. High-gloss exteriors are needed for some high-end

home electronics, while precious matt surfaces are needed for automotive interiors, for example. This prevents undesirable glare and mirroring.

Focusing on these needs, ROMIRA has successfully developed Rotec ASA compounds for the growing demands placed on structured surfaces. These give superior surface quality than standard compounds, and

allow adjustment of the gloss level.

Rotec ASA EXP 2050 and 2053 are suitable for extruding tubes and profiles, in addition to injection moulding. Both materials have lower viscosity, and can be co-extruded with PVC. Co-extruded cover layers of Rotec ASA moulding compounds have a gleaming surface whose weathering resistance is superior to that of PVC

*continue page 8*



alone. Injection-moulded parts likewise feature glossy surfaces. Figure 1 shows the notably shinier surface of a moulded plate of Rotec ASA EXP 2050 in dark brown, compared with a standard plate of ASA S 310 in Figure 2.

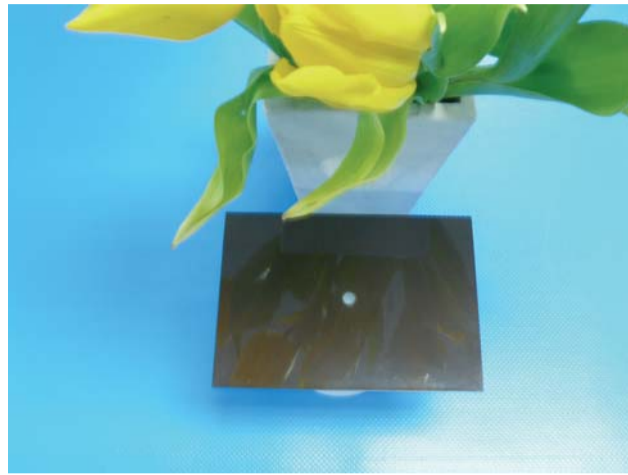


Figure 1: Moulded plate of Rotec ASA EXP 2050 in dark brown

In the visible part of an automobile interior, plastic parts of styrene copolymers generally gleam after manufacture. Often, such parts have to be painted to create a matt effect. This extra work step causes drastically increased production costs, and is also an environmen-

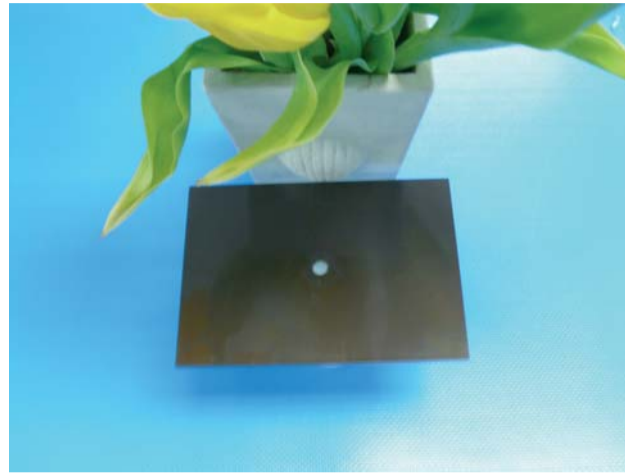


Figure 2: Moulded plate of ASA S310 in dark brown (standard grade)

tal burden. The newly developed Rotec Type ASA EXP 1620 offers a matt surface directly after injection moulding, and has excellent light fastness. The degree of gloss on a K31 grain (gloss measuring device/60 ° observation angle) is measured to 2.0. Rotec ASA EXP 1620 has already been approved for series production by one automotive manufacturer due to the excellent surface appearance of parts made from it.

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## RAINBOW concept makes its mark

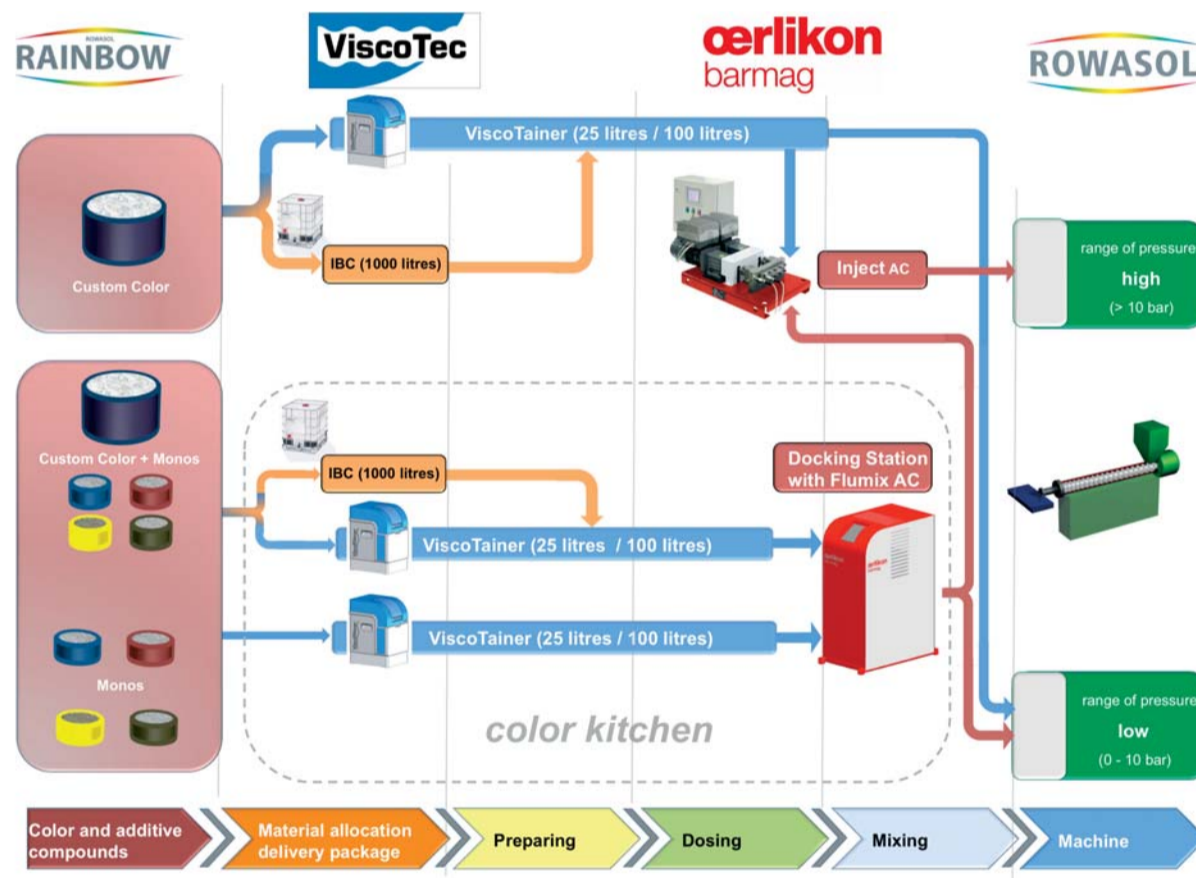
At the 2010 K-Show in Düsseldorf, ROWASOL GmbH presented the newly developed RAINBOW concept to a broad public, and won visitors over with the ability to do online corrections of the colour metrics in extrusion projects. Thanks to well thought-out details, RAINBOW opens up entirely new possibilities for working with liquid colour and additive concentrates.

This modular and flexible system – a docking station in combination with Monos – is installed at the customer's site, and then configured to meet the individual requirement profile. Initial testing at ROWASOL's sister company ROMIRA has been very successful. The mono concept was a success all down the line. In principle, with the help of RAINBOW a palette more than 500 customer-specific colours can be created with an average of 20 Monos.

Another highlight of the new system is its much higher pigment concentration than conventional tube and pump technology. This gives the carrier components much lower influence on the polymer, while ensuring higher colour strength per drop of concentrate. A clear

advantage: customers get more out of a given amount of colour or additive concentrate than with other liquid colour systems.

In addition, with the help of the RAINBOW concept and its shorter reaction times, customers can react flexibly to material deviations. As a result, in addition to lower waste quantities and more effective use of capacity, fundamentally higher production quality is possible.



The complete RAINBOW concept with docking station is planned to be available by this summer. However, interested customers should contact us early in order to schedule an initial project discussion or demonstrations. Additional information on the RAINBOW dosing concept is available for download at [www.rowasol.de](http://www.rowasol.de).

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