



ROWASOL

sustainable
plastics coloring

**LIQUID COLORS &
DOSING SYSTEMS**





**Liquid
Colors**



**Additive
Concentrates**



**ROWAMETRIC
Dosing Systems**



**ROWASOL
COLOR CUBE**



**Contract
Manufacturing**



**Service
Package**

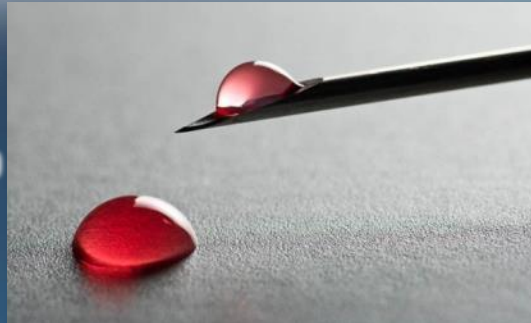
INTRODUCTION INTO LIQUID COLOR CONCENTRATES

COLORANTS



Pigments or soluble colorants

ADDITIVES



Disp. & rheol. agents, etc.

CARRIER



Universal or custom-designed

MIXING



High effective dispersing

LIQUID COLOR



High visc. to easy flowing



RAW MATERIALS: NATURAL CARRIER SYSTEM

Universal carrier systems based on renewable raw materials available.

→ Reduced crude oil content in the final product.

Applications: bio-plastics, recyclates and most common plastics.



PRODCUTION: NO THERMAL ENERGY INPUT

colorants are dispersed at room temperature by mechanical energy input.

→ The CO₂ footprint of the manufacturing process is only approx. 2-4% of the entire product.



USE: ECONOMICAL IN CONSUMPTION

Perfect dispersion → high color strength → low colorant consumption.

Perfect color distribution with 0.5% or less dosage.

Perfect quality: Homogeneous, filtered and not thermal pre-stressed.

Reusable containers to avoid packaging and color waste.



DUST-FREE SELF COLORING WITH „MONOS“

Increased flexibility, shorter color development cycles, internal correction options and adjustable color quantities
→ reduced coloring and storage costs.



PRESSURE INJECTION IN COMPOUNDING

Feeding the liquid color downstream into process section - mixed or up to 6 “monos” separately.
→ Reduced setup effort and inline color correction if desired.



PRESSURE INJECTION IN EXTRUSION

For profile or film extrusion, injection of liquid color between extruder and tool.
→ Extremely fast color changes.

SOLVENT-FREE

Without solvents or water

→ no drying out

STORAGE LIFE

Without perishable substances

→ theoretically storage life is eternal

SEDIMENTATION

After a couple of weeks phase separation can cause a transparent film on the surface and/or sediments

REFRESHING

Stable up to 4 – 6 month

→ stirring, shaking or tumbling before use is recommended

FOOD-APPROVAL

On request FDA, VO (EU) 10/2011 or BfR

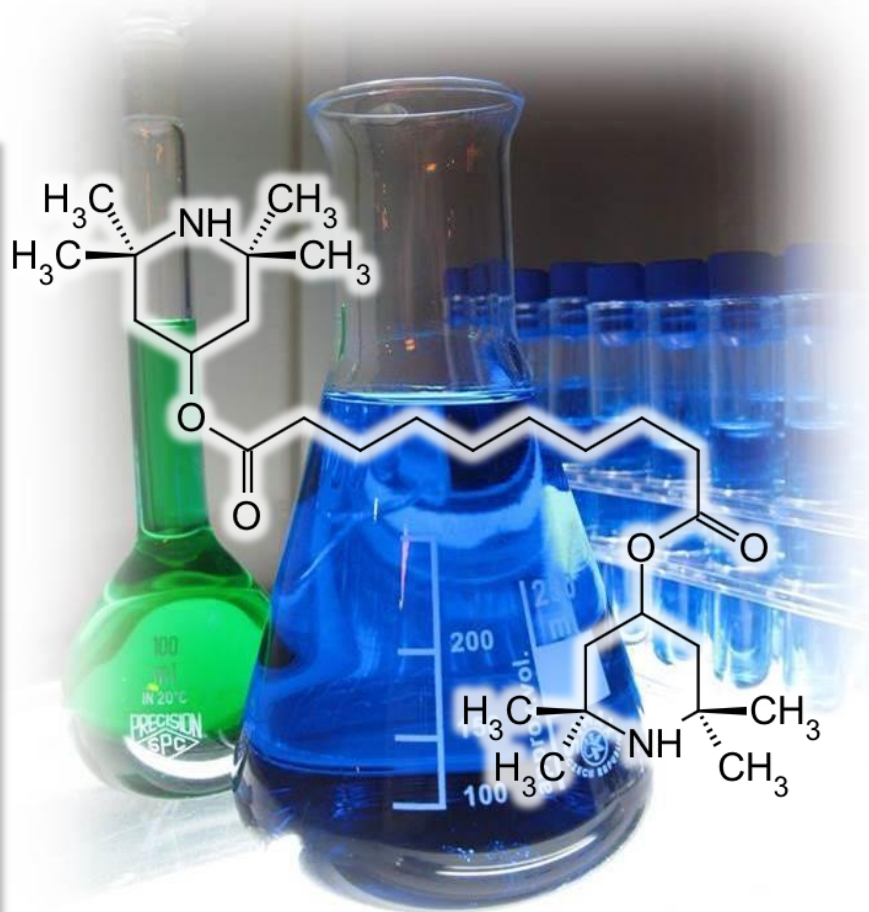
→ Declaration of conformity

PROPERTIES

Theoretically it's a softener → practically no impact on product detectable at usual dosages of 0.5% – 2%

FUNCTION IN LIQUID FORM

- Light stabilizers
- Antistatic agents
- Lubricants
- Laser active substances
- Antioxidants
- Plagiarism protection from Tailorlux
- Custom tailored products
- Combination batches (color + function)





INJECTION MOLDING

Pencil cases, shoe soles, beverage closures, cosmetics packaging, housings, lids, covers, cutlery, and much more.



EXTRUSION

Edge bands, skirting boards, technical compounds, films, floor coverings, fibers, sheets, filaments for 3D printing, window profiles, and much more.



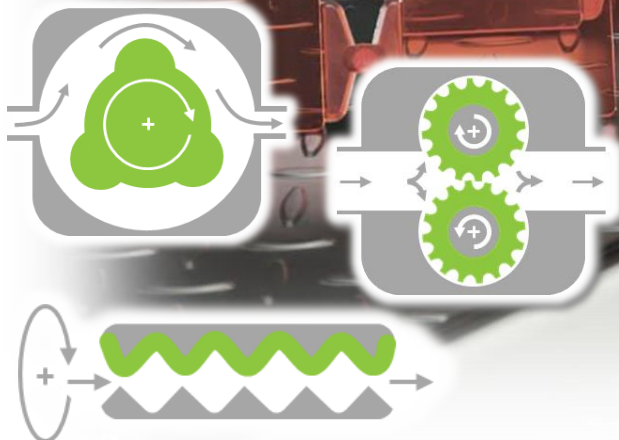
LIQUID TO LIQUID

Epoxy resin systems, silicone components, acrylic resin sheets, gymnastic balls, integral and flexible foams, shoe soles, adhesives, sealants, boat fenders and buoys, and much more.

MODULAR DESIGN: ONE CONTROL UNIT → 3 TYPES OF PUMPS

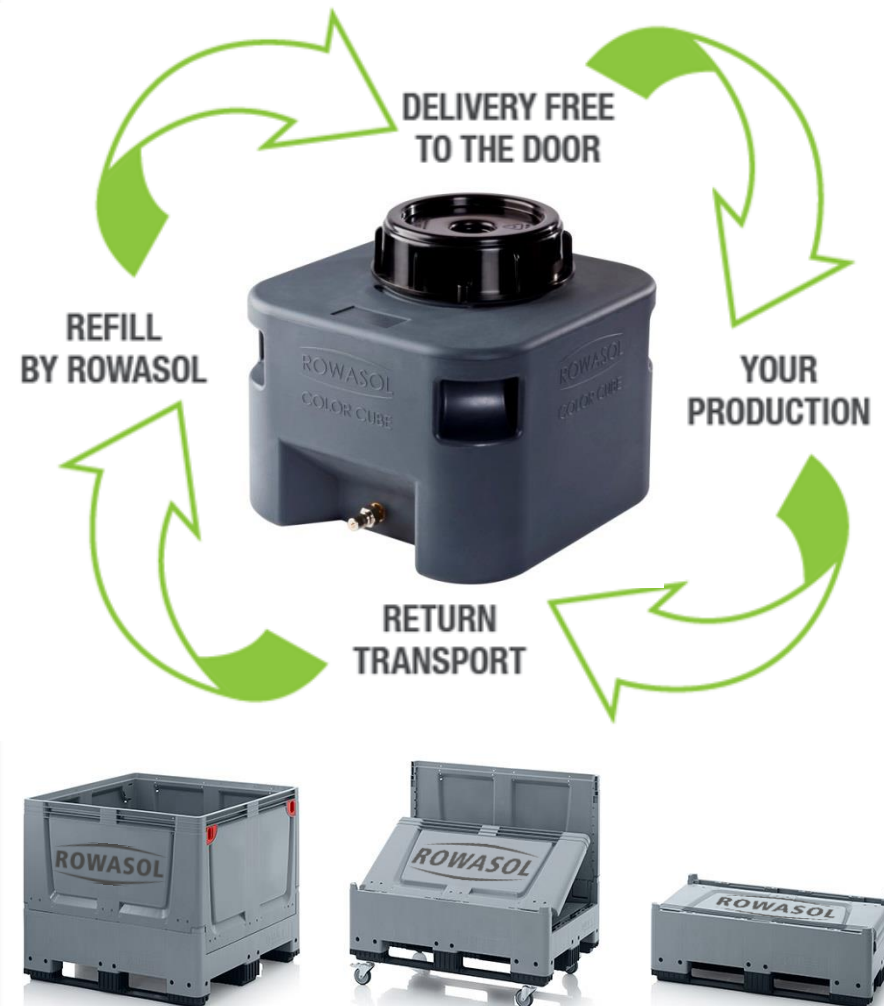


- **Pump Types:**
 - Peristaltic pump, 3- or 6-roller, 4 hose sizes
 - Progressive cavity pump, 4 sizes
 - Gear pump, 3 sizes
- **Operation Modes:**
 - Gravimetric (20/50 kg) or volumetric
 - Injection molding or extrusion
- **Number Pump Heads:**
 - One (standard) or two, incl. intermediate storage for continuous dosing
- **Accessories:**
 - Quick couplings, various container holders, pre-mixer, adapter plates, injection lances, alarm & flash light, Wifi module, software packages, floor scales for drum emptying, mobile tables, and much more



THE RETURNABLE CONTAINER

- Perfectly matches ROWAMETRIC dosing systems
 - Also compatible with other pumps
 - Diaphragm valve for air exchange
 - Robust 22 liter HD-PE container
 - Stackable due to special design
 - Self-sealing-coupling at outlet
 - Closed system
 - Transport box for 12 cubes
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- ✓ No contact to the color
 - ✓ No residual amounts
 - ✓ No waste



POLITAINER



5 / 10 / 20 liter
„Bag in Box“

BUCKET



10 / 20 / 30 liter
„Hobbocks“

BARREL



200 liter
Steel barrel

IBC



640 / 1,000 liter
Intermediate Bulk Container

Of course we also offer to fill our products
into customer-specific packages!

INITIAL INTERVIEW



Identifying the optimization potential and defining the project goals as well as discussing the eligible ROWAMETRIC dosing system.

COLOR MATCHING



Development of one or more colors according to customer's specification, profitability analysis and production of samples.

FIELD TEST



Free presentation of the matched color together with the fitting dosing system at the customer's production plant.

FOLLOW-UP SERVICE



Excellent support during the changeover to liquid coloring, e.g. the setup of a color portfolio or the installation of the dosing equipment.



**THANK YOU VERY
MUCH FOR YOUR
INTEREST!**