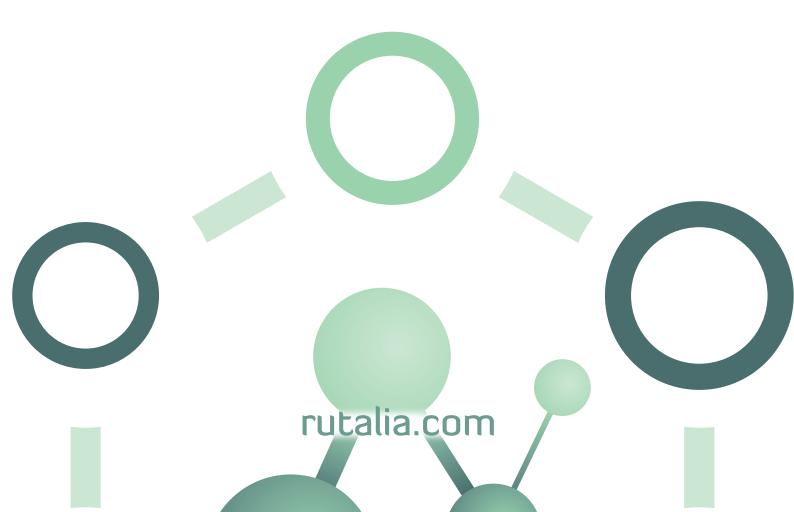


# **PRODUCT CATALOG**



# WIDE RANGE OF COLOURANTS AND ADDITIVES FOR PLASTICS

#### **ANTISTATIC ADDITIVE**

Antistatic additives improve the short- and long-term antistatic properties of LDPE, LLDPE, HDPE and PP products. They reduce surface resistivity and prevent dust attraction. They also protect against the effect known as "electrification of material", which is often seen in LDPE and HDPE films. Antistatics are recommended for: household appliances, buckets, containers, toys.

#### **ANTI-BLOCK ADDITIVE**

Anti-block additives ensure a smooth surface by reducing material surface adherence. They are widely used in LDPE and HDPE film processing, making plastic bags easier to open and preventing films from sticking together.

#### **ANTI-SLIP ADDITIVE**

Anti-slip additives are primarily used as additives for LDPE and HDPE films. They reduce film slippage by causing the film surface to become rough. They are used mainly to manufacture packaging film for bags which will be stacked on pallets.

#### **SLIP & ANTI-BLOCK ADDITIVE**

This product is used to eliminate the natural surface bonding in such materials as PP, LDPE, HDPE, LLDPE, PC, ABS, PS and PVC during processing while increasing film slippage, making it easier to process.

#### **SLIP ADDITIVE**

Slip additives reduce friction between machines and polymers and between polymers and polymer surfaces. They increase slippage, thus facilitating plasticization of injection-moulded products, and protect machine components against abrasion. They are widely used in manufacturing of LDPE and HDPE films, especially when done from regranulates.

#### **CLEANING COMPOUND**

Cleaning compound makes it possible to clean machines, especially injection moulding machines and extruders. It is advisable to use cleaning compounds to quickly change the material used, to change the colour or to remove burnt, corroded residue from machine surface, especially when starting a production line that has not been used for a long time.

#### **POLYCOM MODIFIER**

POLYCOM is a modifying additive which lowers manufacturing costs. It improves the finished product quality and increases the machine park efficiency; it also eliminates slippage in the extruder and improves the life of screws and barrels. And that's not all: the intelligent modifier also increases impact strength, improves colour intensity, ensures excellent firmness and homogenisation and enables precise control of wall thickness variations. POLYCOM is environmentally friendly.

#### **MFI MODIFIER**

An additive which modifies the melt flow index (MFI) of plastics; it increases the MFI of PP and PE. It makes it possible to manufacture thin-walled parts which require a high melt flow index from a cheaper raw material with a low melt flow index.

#### **FLAME RETARDANT FR-2020**

RUTALIA flame retardants are used to manufacture materials which may be exposed to high temperatures, such as materials for use by mine workers or materials for making stadium seats. RUTALIA flame retardant is a high-quality modifying additive based on LLDPE granulate, which means that it can be used with such materials as PP, PA, PS, PC, PVC, LDPE, LLDPE, HDPE, ABS. Moreover, the RUTALIA product range is now expanded by new, fully safe and tested flame retardants with no legal status. With proper dosage, confirmed by tests performed by specialist institutes, they make it possible to achieve the highest flammability rating of V0, which is conformant with all safety standards.

#### **BACTERIOSTATIC ANTI-MICROBIAL ADDITIVE**

Bacteriostatic additives contain nanoparticles which eliminate the negative effects of bacteria. They are widely used in plastic products, such as household appliances, sanitary products, bathroom fittings, packaging and medical accessories. They can reduce the negative effects caused by bacteria which can be present on product surfaces and limit their further spread. Finished products which use bacteriostatic additives are characterised by aesthetic appearance and safety.

#### **FLEXIBILIZER ADDITIVE**

RUTALIA FLEXIBILIZER is an excellent product which effectively prevents cracking in such products as buckets, paint buckets, adhesives as well as strips and profiles.

It also increases resistance to sub-zero temperatures, which is useful for such products as snow shovels and exterior building components. Flexibilizer is also used in manufacturing of frozen food films, which require a food contact certificate, and of injection-moulded parts which require a higher coefficient of flexibility.

#### RODENT AND BIRD REPELLENT ADDITIVE

The RODENT AND BIRD REPELLENT offered by Rutalia Masterbatches & Additives is a functional modifying additive which should be used in all cases where a finished plastic product has to be protected against rodents (rats, mice, squirrels) and birds. The product is a modifying additive consisting of active chemical compounds which emit unpleasant pungent odours that repel rodents, squirrels and birds.

#### **FOAMING AGENT**

The offered foaming agent (expanding agent) is a high-quality additive which makes it possible to obtain plastics with the exact properties desired for manufacturing of specific products. Foaming agents serve to reduce the mass of the finished product, which translates into considerable savings, made possible through reduction in the quantity of raw material needed for production.

#### **PERFUMES FOR PLASTICS - FRAGRANCE ADDITIVES**

The so-called perfumes for plastics give plastic products a specific fragrance, depending on the type of additive.

The most commonly used fragrances are: APPLE, LAVENDER, LEMON, STRAWBERRY, SWEET OSMANTHUS, VANILLA, TROPICAL FRUIT, MINT.

#### **PLASTIC SMELL NEUTRALISER**

This additive removes the unpleasant odour from polymers. It is widely used in processing of regranulates made from household chemical waste, gardening film waste, used vegetable bags, etc. The additive also absorbs residual gases from the production process.

#### **UV STABILIZER**

UV stabilizers protect against the harmful effects of UV radiation and the so-called photodegradation of plastics. They help maintain the colour of plastic products which are exposed to sunlight for prolonged periods of time. They delay the colour fade of plastics, and they also increase their resistance to colour fade. The additive is used primarily in gardening films, outdoor boxes, stadium chairs and facade elements.

#### **DESSICANT**

Dessicant is a modifying additive which removes moisture and gases from the material. It is widely used in products made of regranulates, regrinds and agglomerates, when the material is damp or contains gas. The active ingredient contained in the additive reacts directly during material plasticization or processing. Using the additive prevents the material from "gasifying" and eliminates the formation of "scales" on regranulate foil, removing the need to dry the material.

RUTALIA offers DESSICANTS in multiple variants, from an economy version, through a fine-grained version concentrated in microgranules, to the highest-quality Premium dessicant.

Dessicant is also available in black.

#### **CALCIUM CARBONATE FILLER**

The calcium carbonate fillers (CaCO3 fillers, CaCO3 masterbatches) offered by RUTALIA Masterbatches & Additives contain calcium carbonate mixtures of varied proportions, depending of the type and intended use of the filler. The CaCO3 dispersed in an LLDPE universal carrier is characterised by a high degree of comminution and excellent dispersion. The CaCO3 particles contained in the filler are very fine. Importantly, the whiteness of the CaCO3 filler can reach up to 95%.

#### **TALC (TRANSPARENT) FILLER**

Talc-based fillers (so-called talc masterbatches) are also known in the industry as transparent fillers. As that name implies, they are transparent (or translucent), which means they can be used to manufacture colourless products.

Our talc (transparent) fillers contain talc or nano-talc mixtures. Talc or nano-talc dispersed in an LLDPE universal carrier is characterised by a high degree of comminution and excellent dispersion, which means that the filler contains very fine particles.

#### **VCI ANTI-CORROSION ADDITIVE**

VCI anti-corrosion additives for plastics and anti-corrosion additives for films prevent corrosion from forming. A corrosion inhibitor is a modifying additive which prevents corrosion of ferrous and non-ferrous metals. Metal products in contact with the environment absorb moisture from the air, starting the oxidation process which leads to corrosion of the material. The VCI anti-corrosion additive offered by RUTALIA Masterbatches & Additives protects both ferrous and non-ferrous metals against corrosion.

# **CARBON BLACK**

Carbon black, also known as black pigment or plastics black, is one of the main colouring substances used in the plastics industry. Carbon black is used to manufacture colouring masterbatches and directly as a pigment to colour semi-finished and finished plastic products.

#### **COLOURANTS FOR PLASTICS**

Colourants for plastics manufactured by RUTALIA Masterbatches & Additives are of the highest quality. Our offer includes a palette of basic colours as well as fluorescent colours, mono masterbatches, transparent colourants and an extended variant with pearly and golden colours. We also offer white colourants, black colourants, wood-like colourants and combined masterbatches with such additives as: UV stabilizers, nucleators, antistatics, flame retardants.

All colourants can be used with the following polymers: LDPE, LLDPE, HDPE, PP polyolefins – homopolymers, copolymers, POM, EVA, PS polymers – GPPS, HIPS, SAN, ABS and PVC.

#### **BIODEGRADABLE PLASTIC**

RITUALIA offers biodegradable plastics made of polylactic acid (PLA) and biodegradable cellulose obtained from wood pulp. PLA is a unique biodegradable material produced from annually renewable resources, such as corn, which means that it requires fewer fossil resources than petroleum-based plastics. It offers excellent transparency and has the same oxygen barrier as polypropylene.

#### **BIODEGRADABLE PLA / PBAT MASTERBATCHES**

The high concentration of active ingredient in the base material makes it possible to adapt the product to almost any type and method of plastics processing. This colourant type ensures a high comfort of use and a high accuracy of dosing during production, leading to reduced colouring agent usage and cleanliness in the vicinity of the production line

#### **OXO-BIODEGRADABLE ADDITIVE**

Oxo-degradation is the process of decomposition of plastics in the natural environment, without microbial involvement, under the influence of external factors: light, oxygen and temperature. Oxo-degradable additives cause the material in the finished product to decompose faster. The benefit of using this additive lies therefore in the fact that such packaging will decompose faster than packaging made of pure polyethylene.

The offered colouring masterbatches meet all EU standards as well as requirements of Directive 94/62/EC in the scope of content of heavy metals as well as harmful and hazardous substances. Our offer includes only safe and high-quality masterbatches. Non-toxicity of our products has been confirmed by independent tests and certificates. Rutalia colouring masterbatches are also characterised by high thermal and UV resistance. And, most importantly for all manufacturers, our masterbatches are affordable and very easy to process.

# **RUTALIA MASTERBATCHES & ADDITIVES COLOR PALETTE**



The printed color chart is only illustrative and does not reflect 100% of the colors of plastic samples (especially pearlescent and metallic) and should be treated only as information about the available colors.

# WE OFFER THE FOLLOWING COLOURING MASTERBATCHES AND ADDITIVES:

#### **BLACK MASTERBATCHES:**

BLACK MASTERBATCH 105 - (20% black pigment) BLACK MASTERBATCH 205 - (25% black pigment) colourant for films, injection moulding, blow moulding BLACK MASTERBATCH 405 - (45% black pigment) colourant for films, injection moulding, blow moulding **BLACK MASTERBATCH 505** - (55% black pigment)

BLACK MASTERBATCH 805 - (65% black pigment)

BLACK MASTERBATCH 905 - (70% black pigment)

**BLACK MASTERBATCH 2705** 

(60% black pigment) + glossing agent

**BLACK MASTERBATCH FOR STRETCH FILM 50%** 

dedicated colourant for stretch films

BLACK FA 4200 Standard - (50% black pigment)

with food contact approval

BLACK FA 6050 Premium (filtered) - (70% black pigment) carbon black for fibres, films, injection moulding, blow moulding - excellent for stretch films

#### WHITE MASTERBATCHES:

WHITE MASTERBATCH W001 (70% white pigment)

no calcium carbonate, snow white, repeatable, perfect for multilayer films and for injection moulding and blow moulding, excellent for LDPE blow moulding, excellent for HDPE.

WHITE MASTERBATCH W001 F (70% white pigment)

no filler, snow white, repeatable, perfect for multilayer films, injection moulding and extrusion.

#### WHITE MASTERBATCH Bluish/Blue Tone

(60% white pigment) blue tint, repeatable, perfect for foils and for injection moulding, bottle blowing, household chemicals, etc. Colourant with food contact approval

WHITE MASTERBATCH W002 PREMIUM (80% white pigment)

Excellent for stretch foils

WHITE MASTERBATCH W003/F (55% white pigment)

for all applications in plastics processing which require a food contact approval.

WHITE MASTERBATCH W005/F (40% white pigment) for all applications in plastics processing which require a food contact approval.

WHITE MASTERBATCH W0250 (50% white pigment)

for all applications in plastics processing which require a food contact approval.

## **BIODEGRADABLE COLOURANTS:**

BIODEGRADABLE RED 2529, red - RAL 3020 BIODEGRADABLE BLUE 5502A, blue - RAL 5013 BIODEGRADABLE GREEN 4011, green - RAL 6003 BIODEGRADABLE YELLOW 3306, yellow - RAL 1033 BIODEGRADABLE BROWN 530, brown - RAL 8017 **BIODEGRADABLE BLACK PREMIUM BIODEGRADABLE WHITE RUTILE PREMIUM** 

#### **ADDITIVES:**

MFI MODIFIER 19000029 - (increases the melt flow rate)

FOAMING AGENT RPIC 70 E - 19070015 - reduces the finished product mass and expands the plastic.

**FILLER ECONOMY** – calcium carbonate filler (80% calcium carbonate) natural chalk colour, used for coloured films and granulates in injection and

FILLER FOR FILM PREMIUM - calcium carbonate filler (80% calcium carbonate), snow white, used for white film in injection and blow moulding from the original material.

**TRANSPARENT FILLER** - natural-coloured filler - transparent - for foils, injection moulding of elements from the original material and blow moulding. Food contact approval.

#### PLASTIC SMELL NEUTRALIZER -

absorber/eliminator of unpleasant odours for foils made of granulates.

**DESSICANT** - moisture absorber, dehydrant, perfect for foils and regranulates:

**DESSICANT RT-80 PREMIUM - 80%** 

**DESSICANT SP5 STANDARD - 80%** 

**DESSICANT SP5-S SMALL - 80%** 

**DESSICANT EK08 - 80%** 

**DESSICANT COMBO BLACK -** 80%, contains black pigment

**CLEANING COMPOUND DCZ 210030 - cleaning agent** 

FRAGRANCE ADDITIVE - dosage 1% - fragrances (APPLE, LAVENDER, LEMON, STRAWBERRY, SWEET OSMANTHUS, VANILLA, TROPICAL FRUIT, MINT)

**ANTISTATIC MASTERBATCH PE0219 - antistatic additive** 

ANTIBLOCK DAB 661510 - anti-block additive

SLIP/ANTIBLOCK MB9805 - slip & anti-block additive

SLIP PE0045 - slip additive 5%

ANTISLIP DAP 702132 - anti-slip additive

UV STABILIZER / LIGHTFORM UV / UV MAX20HA900 -

perfect for films used in construction and agriculture

FLAME RETARDANT FR2020 - used in manufacturing of

materials which may be exposed to high temperatures

ANTICORROSIVE VCI - corrosion-inhibiting additive

**OXO-BIODEGRADABLE ADDITIVE** 

**ANTI-MICROBAL** - bacteriostatic additive

PENOFORM PE 50/02 - nucleator

FLEXIBILIZER A4085 - flexibilizing additive

**HARDENER AGENT - hardening additive** 

**COLOURING MASTERBATCHES** (STANDARD - similar to RAL)

YELLOW 3200, yellow - RAL 1021

YELLOW 3306 TWA, yellow - RAL 1033

YELLOW 3313 (3076/N), yellow - RAL 1023

YELLOW 3326 OUTDOOR, yellow - RAL 1028

**BLUE 7294, blue - RAL 5023** 

BLUE 5502 TWA, blue - RAL 5013

BLUE 5505-7, blue - RAL 5022

BLUE 10140, blue - RAL 5022

**DEEP BLUE 19110014**, blue - RAL 5002

**DARK BLUE 19110036, blue - RAL 5010** 

**BLUE 105, blue - RAL 5005** 

RED 5220, red - RAL 2002

RED 2529 TWA, red - RAL 3020

**RED 2539 OUTDOOR, red - RAL 3020** 

RED 150560 AMP, red - RAL 3031

GREEN 6216, green - RAL 6028

GREEN 4011 TWA, green - RAL 6003

GREEN 610010, green - RAL 6004

GRASS GREEN 4016, green - RAL 6018

**BROWN 9023. brown - RAL 8017** 

**BROWN TERRACOTTA, brown - RAL 8004** 

VIOLET 19320001, violet - RAL 4005

ORANGE 3653, orange - RAL 2004

PEARLY WHITE 1125/PRL, pearly white - RAL 9002

**PEARLY GOLD 19815041**, pearly gold - RAL 7008

SILVER 19834005, silver - RAL 9022

**GREY 142-536**, grey - RAL 7015

# **ECONOMY MASTERBATCHES RUTALIA OPTIMAL 2020**

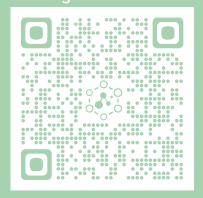
YELLOW OPTIMAL 3376, yellow - RAL 1003 **RED OPTIMAL 2510. red - RAL 3002** BLUE OPTIMAL 5503, blue - RAL 5003 GREEN OPTIMAL 4311, green - RAL 6029 BROWN OPTIMAL 530, brown - RAL 8011

The above colouring masterbatches are available at our warehouses. Colours / tints can be compared using the RUTALIA colour chart, which can be provided free of charge on

Please note that with respect to the aforementioned products, i.e. colouring masterbatches and additives, we hold technical data sheets (TDS), material safety data sheets (MSDS), REACH declarations and test certificates issued by Polish institutes. On request, we can provide you with all required information via e-mail. The above offer is for information purposes only and does not constitute a commercial offer as defined in Art. 66 §1 of the Polish Civil Code.



go to our website



# **RUTALIA**

ul. Bellottiego 1 lok. 24 PL 01-022 Warsaw

> tel. +48 22 425 94 40 fax: +48 22 425 94 41 rutalia@rutalia.com rutalia.com