

TECHNICAL DATA SHEET



DGS plast s.r.o.

We are the first certified manufacturer and processor of PCR materials for coextrusion blowing in the Czech Republic. Our materials are completely recyclable and demonstrably have a significantly lower impact on the environment. To produce RECYCLY material, we use raw materials from both renewable sources and raw materials from the process of sorting and collecting waste from households and companies. The concept is based on the use of post customer and postindustrial recycled material within the number of plastics used in packaging materials. The RECYCLY material is defined by the reduction of the polymer and the supply of recycled components and additives, which improve the primarily environmental profile of the packaging due to lower CO₂ emissions.



The quality of raw materials and the production process as such are regularly inspected and certified by an independent auditor. Technological discipline is given by the most modern machinery, dedicated to the production, distribution, and processing of RECYCLY material.



RECYCLY material is offered in 3 possible colors:

RECYCLY NATURAL, RECYCLY WHITE and RECYCLY GRAY

In terms of composition and properties, the color variants of the RECYCLY material are always the same composition and recipe. The only distinguishing element is the PCR raw material used, which affects the resulting color of the product:

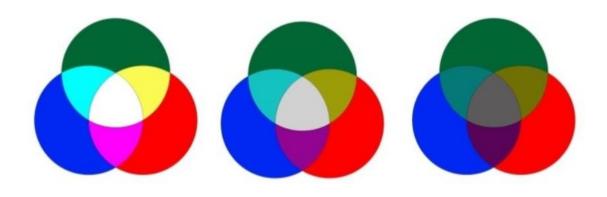
- 1. RECYCLY NATURAL is specific with a slightly milky color, as close as possible to the virgin material in a transparent design without added dyes. Products made of RECYCLY NATURAL material are characterized by a slightly transparent wall with a slightly milky color. The material can be painted with pastel and metallic colors, the difference in color is negligible compared to the virgin material.
- 2. RECYCLY WHITE is a typical white color of products. Color is achieved by additive mixing of individual components and the resulting spectrum of color radiation is then perceived by the human eye of shades of white.

3. RECYCLY GRAY is a material in the color of various intensities of light gray with possible tones according to the color spectrum - the effect of additive color mixing. The material in the GRAY variant can be tinted in pastel colors, but it is never the color equivalent of pure virgin material, especially in its intensity.

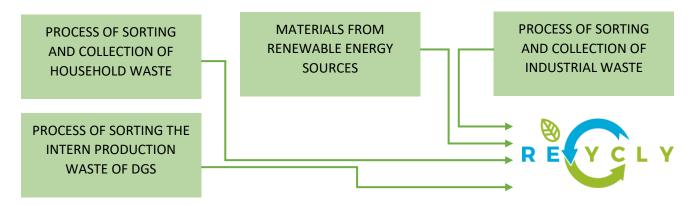
Light barrier: both color variants (WHITE and GRAY) create a certain light barrier within the packaging, thus protecting the contents to a certain extent without the need to solve other added light barriers.

Color variation: the range of color intensity in all RECYCLY variants varies in the range of 30% of the rate of light absorption by the surface of the final product at a stable temperature of 20 ° C. The effect is due to the specificity of the raw material used - PCR / PIR granules. The possible difference in color or the resulting tone is not due to qualitative fluctuations in production, but to the natural possible color range of the input recycled raw material.

Odor: products made of RECYCLY material do not show the side effect common to standard PCR / PIR-based materials on the market, so the specific odor. This side effect is completely suppressed due to the uniqueness of the production process and the additives used in the RECYCLY product.



PRODUCTION PROCESS



CHARACTERISTICS OF RECYCLY:

- the products can be colored
- the products are smart in the subsequent recycling
- increased barrier to the passage of gas molecules through the material
- matt printable surface
- recyclable together with PE

UNIQUE RECEIPT BASED ON FOLLOWING COMPONENTS:

- copolymer with bimodal structure
- post customer- / postindustrial recyclate components
- additives
- master batch colorings

CHARACTERISTIC:

using in existing molds and machinery

outstanding of high impact strength and crack resistance

improved light barrier
 odorless final product
 possible coloring
 outstanding ESCR

MATERIAL PROPERTIES:

 %
 flexural modulus
 1200 MPa
 ISO 178

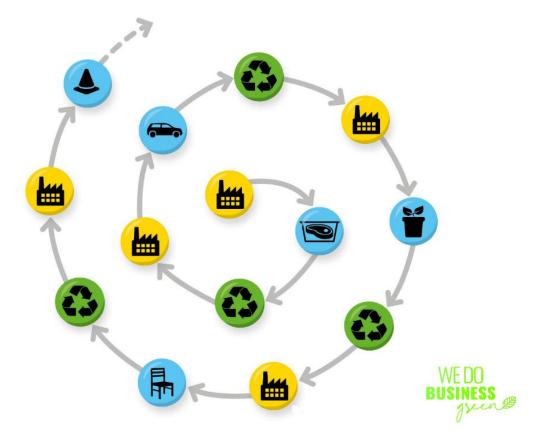
 %
 density
 959 kg/m3
 ISO 1183-2

 %
 ESCR
 550 h
 ASTM D1693

Natural color light milky

8 coloring intensity 30% extend of light absorption during 20 °C

Spiral economy - our idea of a sustainable plastic cycle is to use the material if possible, repeatedly, before it is converted into mere thermal energy by combustion. We work on an infinite number of cycles: the plastic raw material for the RECYCLY material could have been used in another industry in a previous life, as well as recycled material from RECYCLY sludge packaging, can be reproduced and used wherever it is qualitatively suitable, and its effective properties can still be obtained.



- 1. Sustainability of the process: environment, sustainability and recycling are the basic words when choosing RECYCLY material for packaging management solutions.
- 2. Quality and environment: Through continuous development and innovation, 3 different variants of RECYCLY material, produced in a sustainable way of production, have been achieved.
- 3. Recycling plastics: we look at plastic as a material that still does its job well. The disintegration of this material takes a long time, it allows us to recycle repeatedly and benefit from sustainable properties.

It is the customer's responsibility to inspect and test our products to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe, and legal use, processing, and handling of our products. No liability can be accepted in respect of the use of any DGS product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.







