REPLAS
RECYCLING PLASTICS

RecyClass

CERTIFIED QUALITY. RESPONSIBLE CHOICE.

We support our partners in creating high-quality products that meet market and environmental requirements.

REPLAS regranulates are **RecyClass** certified, confirming their quality and compliance with industry standards.

Scan and download our offer

RELIABLE PROVENANCE

CONFIRMED QUALITY

SUPPORTING SUSTAINABLE DEVELOPMENT

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CERTIFIED REGRANULATES HDPE

www.replas.eu

RE-GRANULATES – HDPE(i) - INJECTION

Thanks to a wide range of the melt flow index (MFI) our products find application in the production of the entire range of articles, manufactured by the injection technique. Our re-granulates fit for large-scale, thinwall products like 3000 liters waste containers to structural elements, such as wheel rims for in-house transport systems. We guarantee rheological properties matched to the customer's needs, as well as mechanical strength and impact resistance, even suitable for application in sub-zero temperatures. Our products are available in all colours according to the customer's colour pattern or in the full colour range of RAL palette. We offer 15 standard colours, which you find in the colour palette below. Our colour range covers dark re-granulates for example grey, brown and black, as well as bright and vivid colours for instance red, green and blue.

Technical parameters of HDPE(i) re-granulates

HDPE re-granulate type	**100K -**	**100KS -**	**100B-**	**7525UB -**
Melt flow index [MFI][1)]	11-13	8-11	6-8	1,6-2,5
Melt flow index [MFI][2)]	3-3.5	2.75-3	1.8-2.4	DNA
Charpy impact strength [Kcv+]	6-8 kJ/m^2	8-10 kJ/m^2	10-12 kJ/m^2	17-21 kJ/m^2
Charpy impact strength [Kcv-][3)]	4-5 kJ/m^2	5-6 kJ/m^2	DNA	DNA
Tensile strength [Rm]	17-20 MPa	17-20 MPa	18-21 MPa	19-22 MPa
Elongation at break [ε]	> 300%	> 300%	200-300%	80-150%
Degree of cleanliness [filtration]	Laser filter	Laser filter	Laser filter	Laser filter
Residual moisture => [% H_2O]	<0.04%	<0.04%	<0.04%	<0.04%
Color accuracy => [ΔE]	2.0	2.0	2.0	2.0
Available colours	colour palette	colour palette	colour palette	RAL 9005 RAL 7016

[1)] g/10 min. under 5 kG load at 190°C
[2)] g/10 min. under 2.16 kG load at 190°C
[3)] notched impact strength test at minus 20°C

Standard applications of HDPE(i) re-granulates

100K – for injection of large-scale elements (containers) with a long flow path in a die
100KS – for injection of large-scale elements with increased impact resistance (elasticity)
100B – for a one-point injection of small elements (constructional) of big impact resistance
7525UB – for injection of small elements (structural) of very big impact resistance

Colour palette for HDPE(i) re-granulates

RAL 1011	RAL 5015	RAL 6033	RAL 7001
RAL 1023	RAL 5011	RAL 6011	RAL 7016
RAL 3016		RAL 6002	RAL 7021
RAL 3009	MIX	MIX	RAL 9005

RE-GRANULATES – HDPE(e) – EXTRUSION

Our HDPE re-granulates with low melt flow index (reprocessed with an extrusion method) are applicable for the production of casing and installation pipes in a corrugated version and in a smooth version. It can also be used for the production of construction films (calendered). Our rheological properties can be individually matched according the customer's needs. On top they fulfill the requirements of proper mechanical strength (impact resistance) and resistance to degradation factors (OIT value). The degree of stabilization to UV radiation can be chosen individually. Re-colouring our products to basic colours (blue, green, red, yellow) are mandatory.

Technical parameters of HDPE(e) re-granulates

HDPE re-granulate type	**100A-1**	**100AP -**	**100A-2**	**8020UR -**
Melt flow index [MFI]*	0.3-0.6	0.5-1.0	0.6-1.0	1.2-1.8
Charpy impact strength [Kcv]	25-40 kJ/m^2	25-40 kJ/m^2	25-40 kJ/m^2	17-25 kJ/m^2
Tensile strength [Rm]	20-25 MPa	20-25 MPa	20-25 MPa	18-22 MPa
Elongation at break [ε]	40-60%	40-60%	40-60%	50-100%
Oxidative induction time [OIT]	>20 min	>20 min	>20 min	>20 min
Degree of cleanliness [filtration]	Laser filter	Laser filter	Laser filter	Laser filter
Residual moisture => [% H_2O]	<0.04%	<0.04%	<0.04%	<0.04%
Color accuracy => [ΔE]	2.0	2.0	2.0	2.0
Available colours	RAL 9005 MIX	colour palette	RAL 9005 MIX	colour palette

*) g/10 min. under 5 kG load at 190°C

Standard applications of HDPE(e) re-granulates

100A-1 – for extrusion of casing pipes (corrugated and smooth)
100AP – for extrusion of casing pipes (corrugated and smooth)
100A-2 – for extrusion of large-scale sewage pipes (smooth)
8020UR – for extrusion of construction films (water insulation)

Colour palette for HDPE(e) re-granulates

RAL 1023	RAL 3016	RAL 5015	RAL 6033
RAL 9005		MIX	MIX

PRODUCTS QUALITY – LABORATORY - CERTIFICATES

REPLAS products exceed high quality and technical parameters repeatability. This is guaranteed by our quality manager's constant supervision. Our excellently educated laboratory technicians test raw materials (waste) delivered to the factory, as well as all products (re-granulates) leaving our factory. The transition phases (milling) in terms of re-processing (rheological) and functional properties (mechanics, coloristic) are validated, too. Each re-granulate batch leaving our factory is highly homogenic (cascade mixing system). This is confirmed by the attached specification, which also contains the results of all laboratory test. In addition we keep reference samples to assure best quality and easy follow-up orders. The traceability of the waste acquisition source and a precise declaration of all sources of raw materials is guaranteed by our source tracking system (compulsory requirement of RecyClass certification).

Standard tests of polymers properties in REPLAS plant's own laboratory

Melt flow index (MFI / MFR) => [g/10min.]

- HDPE under 2.16 kG load at 190°C acc. to PN-EN ISO 1133
- HDPE under 5.0 kG load at 190°C acc. to PN-EN ISO 1133
- PP under 2.16 kG load at 230°C acc. to PN-EN ISO 1133

Charpy impact strength (Kcv+ / Kcv-) => [kJ/m^2]

- notched impact strength at +23°C temperature acc. to EN ISO 179/1eA
- notched impact strength at +-20°C temperature acc. to EN ISO 179/1eA

Tensile test/elongation (Rm / ε) => [MPa] / [%]

- tensile strength acc. to PN-EN ISO 527
- relative elongation at break acc. to PN-EN ISO 527

Residual moisture [% H_2O]

- testing with the use of MAX-50 moisture analyzer

Oxidative induction time (OIT) => [s]

- testing with the use of DSC scanning calorimeter acc. to PN-EN ISO 11357

Colour accuracy [ΔE]

- testing with the use of comparative calorimeter

The modern plastics industry is increasingly emphasizing on the transparency of raw material origins and the credibility of environmental claims. RecyClass certification confirms material traceability throughout the entire supply chain, verifies the recycled origin of the raw material, and ensures that the process complies with European quality standards and circular economy principles.

For customers, this means confidence that the regranulates used come from a verified source, have confirmed quality, and provide a reliable foundation for developing products that meet the highest market and environmental requirements.

At REPLAS, we offer certified HDPE regranulates, which supplies its business partners with a material that combines high technical quality with full transparency and a responsible approach to sustainable production.