

## TECHNICAL DATA SHEET:

Description: Recycled low density polyethylene  
 PE - (R) - PELLETS - N - III/ G1/ T3 / 1 - UNE 53978  
 Origin: 100% Post-consumer. Eucertplast Certified  
 Shape: Pellets  
 Color: Natural  
 Packaging: Big - Bags over pallet covered with hoods and stretch film for outdoor storage.  
 Filtration: 110 microns  
 Composition: 40-55% LDPE / 45-60% LLDPE <sup>(1)</sup>

CHARACTERISTICS	TEST METHOD	TESTING CONDITIONS	VALUE	UNIT
<b>MATERIAL PROPERTIES</b>				
MELT FLOW INDEX	ISO 1133	190 °C - 2,16 Kg	1,00 ± 0,30	g/10min
DENSITY	ISO 1183	23 °C	0,924 ± 0,006	g/cm³
MOISTURE CONTENT	INTERNAL METHOD	105 °C	< 0,30	%
ASH CONTENT	ISO 3451-1	600 °C	< 1	%
<b>MECHANICAL PROPERTIES <sup>(1),(2)</sup></b>				
TENSILE STRENGTH @ BREAK MD	ISO 527 - 3	100 m/min	29 ± 2	MPa
TENSILE STRENGTH @ BREAK TD	ISO 527 - 3	100 m/min	26 ± 3	MPa
TENSILE STRENGTH @ YIELD MD	ISO 527 - 3	100 m/min	15 ± 2	MPa
TENSILE STRENGTH @ YIELD TD	ISO 527 - 3	100 m/min	15 ± 1	MPa
TENSILE ELONGATION @ BREAK MD	ISO 527 - 3	100 m/min	257 ± 28	%
TENSILE ELONGATION @ BREAK TD	ISO 527 - 3	100 m/min	478 ± 52	%
TEAR STRENGTH (ELMENDORF) MD	ISO 6383 - 2	23 °C	0,6 ± 0,2	N
TEAR STRENGTH (ELMENDORF) TD	ISO 6383 - 2	23 °C	3,7 ± 0,3	N

<sup>(1)</sup> The data given are mean values, correspond to a representative sample and are only referential.

<sup>(2)</sup> Film with thickness of 15 µm obtained on a laboratory scale blown film extruder.

### Shipment Info:

Expedition in truck or container.

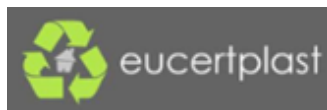
Approximate Net Weight per Big Bag: 1.100 Kg.

Approximate Net Weight per Load (22 Big bags): 24.200Kg.

Tariff Code: 39011090.

Billing is done by weighing the big bags individually, not including the weight of the pallet and the material used for outdoor storage.

**100%  
Recycled**



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Recyclable**



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 Filtration: 110 microns  
 Composition: 25-40% LDPE / 60-75% LLDPE <sup>(1)</sup>

CHARACTERISTICS	TEST METHOD	TESTING CONDITIONS	VALUE	UNIT
<b>MATERIAL PROPERTIES</b>				
MELT FLOW INDEX	ISO 1133	190 °C - 2,16 Kg	1,50 ± 0,30	g/10min
DENSITY	ISO 1183	23 °C	0,923 ± 0,006	g/cm³
MOISTURE CONTENT	INTERNAL METHOD	105 °C	< 0,30	%
ASH CONTENT	ISO 3451-1	600 °C	< 1	%
<b>MECHANICAL PROPERTIES <sup>(1),(2)</sup></b>				
TENSILE STRENGTH @ BREAK MD	ISO 527 - 3	100 m/min	25 ± 2	MPa
TENSILE STRENGTH @ BREAK TD	ISO 527 - 3	100 m/min	25 ± 2	MPa
TENSILE STRENGTH @ YIELD MD	ISO 527 - 3	100 m/min	13 ± 1	MPa
TENSILE STRENGTH @ YIELD TD	ISO 527 - 3	100 m/min	13 ± 1	MPa
TENSILE ELONGATION @ BREAK MD	ISO 527 - 3	100 m/min	324 ± 12	%
TENSILE ELONGATION @ BREAK TD	ISO 527 - 3	100 m/min	512 ± 7	%
TEAR STRENGTH (ELMENDORF) MD	ISO 6383 - 2	23 °C	1,3 ± 0,1	N
TEAR STRENGTH (ELMENDORF) TD	ISO 6383 - 2	23 °C	6,2 ± 1,1	N

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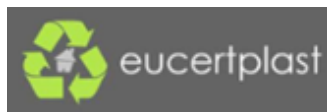
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 Color: Natural  
 Packaging: Big - Bags over pallet covered with hoods and stretch film for outdoor storage.  
 Filtration: 110 microns  
 Composition: 10-25% LDPE / 75-90% LLDPE <sup>(1)</sup>

CHARACTERISTICS	TEST METHOD	TESTING CONDITIONS	VALUE	UNIT
<b>MATERIAL PROPERTIES</b>				
MELT FLOW INDEX	ISO 1133	190 °C - 2,16 Kg	2,00 ± 0,30	g/10min
DENSITY	ISO 1183	23 °C	0,922 ± 0,006	g/cm³
MOISTURE CONTENT	INTERNAL METHOD	105 °C	< 0,30	%
ASH CONTENT	ISO 3451-1	600 °C	< 1	%
<b>MECHANICAL PROPERTIES <sup>(1),(2)</sup></b>				
TENSILE STRENGTH @ BREAK MD	ISO 527 - 3	100 m/min	30 ± 1	MPa
TENSILE STRENGTH @ BREAK TD	ISO 527 - 3	100 m/min	26 ± 2	MPa
TENSILE STRENGTH @ YIELD MD	ISO 527 - 3	100 m/min	14 ± 1	MPa
TENSILE STRENGTH @ YIELD TD	ISO 527 - 3	100 m/min	14 ± 2	MPa
TENSILE ELONGATION @ BREAK MD	ISO 527 - 3	100 m/min	415 ± 29	%
TENSILE ELONGATION @ BREAK TD	ISO 527 - 3	100 m/min	526 ± 11	%
TEAR STRENGTH (ELMENDORF) MD	ISO 6383 - 2	23 °C	1,6 ± 0,3	N
TEAR STRENGTH (ELMENDORF) TD	ISO 6383 - 2	23 °C	6,6 ± 0,5	N

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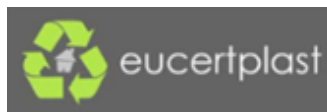
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		FECHA: 18-05-2016
	<b>SAFETY DATA SHEET</b> <b>rLDPE NC+</b> <b>505010 / 356515 / 208020</b>	PÁGINA: 1/5
		REF.: 1.0

**PRODUCTS: rLDPE NC+ 505010**  
**rLDPE NC+ 356515**  
**rLDPE NC+ 208020**

#### PART 1: DESCRIPTION OF THE PRODUCT AND THE COMPANY.

- **Identification of the Product:**

-Product's name: Grains NCP LDPE : Granules of recycled of low density polyethylene.

-Molecular structure:  $\text{[-CH}_2\text{-CH}_2\text{-]}_n$

- CAS Number: 9002-88-4

- **Use and general applications:**

Industrial Packaging, Bags, Multipack Shrink Film, Lamination, Agricultural Film.

- **Name of the company:**

**NATUR CYCLE PLUS 2020 SL**  
San Juan de la Peña, 144  
50015 Zaragoza (Spain)  
Telephone: +34 976 103 100

#### PART 2: HAZARDS IDENTIFICATION.

- **Classification in compliance with the rule (CE) No 1272/2008:**

This is not a dangerous material nor a dangerous mix. There are no specific risks for people or the environment.

- **Labeled in compliance with the rule (CE) No 1272/2008 (CLP):**

This is neither a dangerous material nor a dangerous mix, in compliance with the rule (CE) No. 1272/2008.

#### PART 3: COMPOSITION/INFORMATION ON INGREDIENTS.

Recycled low density polyethylene obtained from a process of sorting, washing and repelletizing.


#### PART 4: FIRST AID MEASURES

- **Description of first aid measures**

**Inhalation:** Move the affected person outside to fresh air. If there are any effects, see a doctor.

**Skin contact:** If the molten material come into contact with the skin, do not apply ice. Instead apply abundant water. DO NOT try to remove it from the skin. It would cause severe damages on the skin. Ask for immediate help to a doctor. An emergency shower must always be available.

**Eye contact:** Rinse the eyes with water during several minutes. Remove contact lenses after a minute or two and continue washing for several more minutes. If there are secondary effects, ask for a doctor, preferably an ophthalmologist.

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**Ingestion:** If there is an ingestion, seek medical attention. This can block the gastrointestinal tract. Do not give laxatives or induce vomiting without medical approval.

- **Main symptoms, acute and delayed**

**Inhalation:** Molten polymer vapors may be cause irritation to the respiratory tract.

**Skin contact:** Contact with molten polymer may cause burns.

**Eyes contact:** The vapors of the molten polymer may irritate the eyes.

- **Indication for any medical treatment to be given immediately:**

Ask for a doctor.

## PART 5. FIREFIGHTING MEASURES

- **Extinguishment Measures:**

**Adequate extinguishing media:** Water spray, foam, gas extinguishers, dust extinguishers.

**Improper extinguishing media:** None

- **Specific hazards from the product or mix:**

**Dangerous combustion products:** During a fire the smoke can contain products which combustion can be toxic and/or irritating, for example, carbon monoxide (CO) or, carbon dioxide (CO<sub>2</sub>).

**Unusual risks of fire and explosion:** Pneumatic conveying and other mechanical handling operations can generate combustible dust. Do not allow dust to accumulate to reduce the potential for dust explosions. This product shows very dense smoke when burned without sufficient oxygen.


- **Recommendations for the firefighting personnel.**

**Firefighting Procedures:** Keep people away. Isolate fire and denied unnecessary access. Dampen thoroughly with water to cool it down and prevent re-ignite. If the material is molten do not apply direct water stream. Use fine water spray or foam. Cool surroundings with water to locate the fire zone. For small fires can be used dry powder extinguishers, or carbon dioxide (CO<sub>2</sub>) extinguishers.

**Special protective equipment for firefighting personnel against fire:** Use self-contained breathing equipment, and protective clothing (including a helmet, jacket, pants, boots, gloves). If protective equipment is not available or usable, extinguish the fire from a protected site or from a safe distance.

## PART 6. MEASURES IN CASE OF ACCIDENTAL RELEASE

- **Personal precautions, safety equipment and emergency procedures:** The product on the floor can increase the risk of falling. Use appropriate safety equipment.
- **Precautions regarding the environment:** Avoid spillage into soil, ditches, sewers, waterways and groundwater.
- **Methods and equipment storage and cleaning up:** Contain spilled material if possible. Sweep. Collect in suitable and properly labeled containers.

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		REF.: 1.0

## PART 7. HANDLING AND STOCKAGE

- **Precautions in Handling:**

Have adequate ventilation in line with the processing machines. Do not smoke, maintain far from open flames or from ignition sources in handling and storage.

Take measures to prevent electrostatic charges.

- **Storage Prevention:**

Store under a roof, in a cool, dry place away from sunlight.

## PART 8. EXPOSURE CONTROLS AND INDIVIDUAL PROTECTION.

- **Exposure Control**

Have an adequate ventilation. Do not smoke and avoid all sources of ignition. Avoid contact and inhalation of vapors.

- **Personal protective measures.**

**Eye protection:** Safety glasses to avoid splashing while handling the molten product.

**Skin protection:** Gloves, appropriate clothes and security shoes.

**Respiratory protection:** Respiratory protective mask in the presence of the melted product vapors

## PART 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Information on basic physical and chemical properties**

**Physical State:** Pellets

**Color:** Natural / lightly colored.

**Odor:** Odorless

**Point / Range:** 105 - 135 ° C

**Flash point:** >300 °C

**Flammability (solid, gas):** No

**Vapor Pressure:** Not applicable

**Density (water = 1):** 0,90 to 0,95 g / cm<sup>3</sup>

**Solubility in water:** Insoluble

## PART 10. STABILITY AND REACTIVITY


- **Reactivity:** No data available.

- **Chemical Stability:** Stable.

- **Conditions to avoid:** Exposure to high temperatures could cause product deterioration.

- **Incompatible materials:** None known.

- **hazardous decomposition products:** Decomposition products depend on temperature, air supply and the presence of other materials. Processing may release smoke and other decomposition products. Polymer fragments can be released at temperatures above the melting point. Vapors can be irritating.

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## PART 11. TOXICOLOGICAL INFORMATION

- **Information on toxicological effects**

Polyethylene is an inert and non-toxic materials.

Acute toxicity LD50/LC 50 - CAS 9002-88-4 :

Lethal concentration inhaled: 50% in mice 12 g / m<sup>3</sup> (30 minutes).

Note: The materials that were used to obtain the recycled low density polyethylene have been selected from post-consumer materials which have not been in contact with hazardous materials.

## PARTIE 12. ECOLOGICAL INFORMATION

- **Toxicity**

**Acute toxicity to fish:** It is nontoxic but pellets can be dangerous if they are eaten by birds or aquatic animals .

- **Persistence and degradability.**

**Biodegradation:** It should be inert in the environment. A significant biodegradation is expected.

- **Mobility in soil:** In the terrestrial environment, material is expected to remain in the soil. In aquatic environment, the material is expected to float.

## PART 13. DISPOSAL CONSIDERATIONS

- **Waste treatment methods.**

Uncontaminated material removal can be done by mechanical recycling, chemical recycling or through energy recovery. In some countries it is permitted the disposal of the material in a landfill. For a contaminated product, the options are the same, although additional evaluation is required. For all countries the disposal methods must comply with national laws, state laws and any local legislation. All disposal methods must comply with the framework of the European Directives 2008/98 / EC and its subsequent modifications, the regulations implemented, national laws and EU directives dealing with priority waste streams. The shipment of waste through States must comply with European Regulation (EC) 1013/2006 and subsequent amendments.

The group of residues of the European Catalogue of wastes in which we must place this product, and the code that corresponds, will depend on the use that is made of it. Address to the waste disposal services.

## PART 14. TRANSPORT INFORMATION

**ADR:** Not dangerous goods.


**RID:** Not dangerous goods.

**ADNR:** Not dangerous goods.

**IMDG:** Not dangerous goods.

**ICAO/IATA:** Not dangerous goods.

Send by post: Authorized.

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It is also not subject to risk of identifications

#### **PART 15. REGULATORY INFORMATION**

Regulation should be consulted by application sectors and the developed standardization of the products. Additionally please consult the developed standards (ASTM, ISO, UNE) for the characterization, identification and establishment of traceability.

#### **PART 16. OTHER INFORMATIONS**

The information provided is based on our current knowledge. Products are described for safety, without constituting a specific properties guarantee, or any alteration caused by improper handling or prevention measures.