

# Gregeo RA020

## For Mulch Film

### 1. Product Information

RA020 is composed of PBAT, PLA, micronized calcium carbonate, talc, UV stabilizers, etc. It can be completely degraded into carbon dioxide, water, biomass, and inorganic substances in both composting and soil environments.

- Color: white/black
- Name: RA020
- Form: granules
- Application: making biodegradable mulching film for agricultural uses
- Processing Methods: on regular film blowing machine
- Film thickness: no less than 6 microns
- Manufacturer:

Name: Shandong Ruian New Material Biotechnology Co., Ltd.

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### 2. Product Properties

Properties <sup>[1]</sup>	Test Method	Test Condition	Unit	Values <sup>[2]</sup>	
<b>Granules</b>					
MFR	ISO 1133	190°C, 2.16 kg	g/10min	1.5-5.0	
Density	ISO 1183	23°C	g/cm <sup>3</sup>	1.15-1.35	
Melting Point	DSC	/	°C	110-130	
<b>Film Thickness: 10 μm</b>				White Film	Black Film
Tensile Strength MD/TD	ISO 527	500 mm/min	N	3.8/2.7	3/2
Elongation at Break MD/TD	ISO 527	500 mm/min	%	200/700	220/750
Right-Angle Tearing Strength	QBT 1130	/	N	1.38/1.59	1.3/1.5
Light Transmittance	ASTM D 1003	Single Layer	%	88	6
Haze	ASTM D 1003	Single Layer	%	80	83
WVTR	GB/T1037	38° C, 90RH%	G · m <sup>-2</sup> · d <sup>-1</sup>	400	500

[1] Not to be construed as specifications.

[2] The values are measured by test standards listed, which may vary depending on different processing methods and conditions, are for reference only and should not be construed as indicators of quality.

### 3. Quality Control

RA020 is made by twin screw equipment, with MFR (190° C, 2.16kg) and film production testing serving as quality control indicators. MFR testing is conducted every two hours of production, while film preparation testing is conducted every 12 hours. All film specifications meet the requirements of GB/T 35795-2017 for biodegradable ground cover film for agricultural uses.

### 4. Transportation and Storage

RA020 is packed in 25kg/bag or 800kg/bag units. Transport and storage temperatures should not exceed 60° C. The unopened material can be stored for 6 months at ambient temperature (23° C), and intact packages are ready for direct use. If exposure to air for over 3 hours, may cause moisture absorption. If damaged, it needs to be dried before use, because moisture above 1000ppm will affect the extrusion

processing; the effective drying condition is 80° C for 5 hours. Dried products must be protected from moisture.

##### 5. Blown film processing parameter recommendations

Setting	Typical Value	Range
Melting Temperature	165°C	150-170°C
Heating Temperature of Blowing Film	Posterior Segment	160°C
	Middle Segment	165°C
	Anterior Segment	165°C
Die Temperature	168°C	150-170°C
Processing Temperature Limit	185°C	
Pre-drying Conditions	80°C, 5 hours	



All information provided herein is based on the current knowledge and experience of Ruian biodegradable polyester. The version will be updated when necessary. All information is only for customers' reference in material selection and evaluation, and is not used as the basis for judging product quality