



# TECHNICAL DATA SHEET

SEABIRD  
7 rue du cmdt Charcot  
56260 LARMOR PLAGE  
France  
[contact@seabird.fr](mailto:contact@seabird.fr)  
+33(0)2 30 91 98 30

## SEA®214 COMPOUND

The SEA®214 grade is **100% biodegradable in industrial compost** and **more than 90% biobased**. It has been developed for the **extrusion process**, and more specifically for extrusion spinning.



### Storage information

Storage and drying conditions of the SEA®214 compound to achieve optimal processing conditions (i.e. humidity level below 700 ppm) and ensure good properties :

- Keep the compound granules in its closed bag, in a room without humidity, at room temperature and without sources of heat, light or air.
- **Keep the bag closed** until processing of the compound and close it again quickly after use if it is not completely empty to avoid any contamination.
- If possible, **dry the compound at 60°C** during 6 to 8 hours (standard) before processing. After drying, the granules can reach 680 ppm of moisture in 1 hour.
- After processing, it is not recommended to heat the material over 80°C.

Property	Standard	SEA® 214
Density (g/cm <sup>3</sup> )	ISO 1183	1,25
Melting temperature (°C)	ISO 3146	115
Application temperature (°C)	/	< 80
MFI (170°C, 2.16 kg) (g/10min)	ISO 1133	3 – 8
Tensile modulus (GPa)	ISO 527	0,62 – 0,63
Ultimate strength (UTS) (MPa)	ISO 527	35 – 36
Elongation at UTS(%)	ISO 527	21 – 31
Strength at break (MPa)	ISO 527	30 – 31
Elongation at break (%)	ISO 527	109 – 110

### Implementation process

Cleaning of the processing tool may be necessary to avoid any contamination. The presence of impurities can cause industrial tests to fail.

- Avoid a long period of stagnation of the material during processing to protect it from thermal degradation which could lead to a reduction in the properties and production instabilities.
- It is highly recommended to have a **material temperature** in the extruder around 170°C. If needed, gradually increase

it to a temperature deemed optimal for use.

Process temperature (indicative)	
Drying conditions	60 °C during 6 to 8 hours
Feeding	60 °C
Zones 5 to 1	180 / 170 / 170 / 170 / 165