

# Technical Data Sheet

AGC-IM901



v.240820

Technical Data Sheet	Biocomposite for injection moulding	AGC-IM901
Description of properties	AGC-IM901 is a biocomposite based on Polylactic Acid (PLA) and wood-fibres suitable for injection moulding applications. The material is characterised by a high strength and low CO <sub>2</sub> footprint.	

General properties	Method	Unit	Value
Density	ISO 1183	kg/dm <sup>3</sup>	1.13
MFI (190 °C; 2.16 kg)	ISO 1133	g/10min	4
MVR (220 °C; 5 kg)	ISO 1133	cm <sup>3</sup> /10min	53
Wood content (weight)	Internal	%	20

Mechanical properties	Method	Unit	Value
Tensile strength	ISO 527-2/50	MPa	34
Tensile modulus	ISO 527-2/2	MPa	3000
Strain at break	ISO 527-2/50	%	4.1
Flexural strength	ISO 178	MPa	50
Flexural modulus	ISO 178	MPa	2800
Charpy impact strength, 23 °C	ISO 179/1eU	kJ/m <sup>2</sup>	20

Thermal properties	Method	Unit	Value
Melt temperature	Internal	°C	175
Ball pressure test, <2mm indentation after 1h	IEC 60695-10-2	°C	53

**Contact**  
[info@agoodchoice.se](mailto:info@agoodchoice.se)  
Telephone exchange:  
+46 31 3000 531

**Head Office**  
Östra Hamnen 21  
475 42 Hönö Sweden  
**Post**  
Box 1006  
475 22 Öckerö Sweden

**Improve Tec AB**  
Org.Nr: 559109-2423  
VAT.Nr: SE559109-242301

## Processing recommendations

- Storage and drying conditions are important for successful processing of the material.
- The rotation speed of the screw during compounding of the material shall be low to avoid heat of friction.

Zone	Temperatures (°C)
Feed zone	25
Zone 2	180
Zone 3	180
Zone 4	180
Zone 5	190
Nozzle	190

## Drying of pellets

- It is very important to dry the pellets prior to extrusion. Moisture causes hydrolysis of the polymer during melt processing resulting in deviations in processing performance and reduced mechanical performance of the finished part.
- Drying at 85 °C in a dry-air dryer. Measure the moisture content after drying to verify sufficiently low moisture content.
- The moisture content shall not exceed 0,05% after drying.

## Storage of pellets

- Avoid direct contact with air and light.
- It is recommended to keep the packaging sealed until the material is to be used and to reseal the packaging after usage to avoid moisture uptake.

## Recommended

- It is recommended to measure the actual melt temperature with a hand-held device before starting production to check if heat of friction occurs.
- Long time stagnation of the material in the cylinder shall be avoided as this can cause degradation. Purging of the cylinder can be made with a low flow PE-HD.

## OBS

- The information submitted in this document is based on our current knowledge and experience.
- In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments.

### Contact

[info@agoodchoice.se](mailto:info@agoodchoice.se)  
Telephone exchange:  
+46 31 3000 531

### Head Office

Östra Hamnen 21  
475 42 Hönö Sweden  
**Post**  
Box 1006  
475 22 Öckerö Sweden

### Improve Tec AB

Org.Nr: 559109-2423  
VAT.Nr: SE559109-242301