

VEGEMAT® E4589

Biodegradable Polymers

VEGEPLAST S.A.S.

Message:

VEGEMAT® is a composite material concept obtained by transforming all the aerial parts of corn with neither separation nor purification of their constituent parts.

Thanks to its technical and chemical properties, this new bioplastique material based on corn, 100% biodegradable, is intended to substitute itself from usual plastics of petrochemical origins, design for injection.

Pieces made from VEGEMAT® have the advantages of both wood and cardboard for their natural aspect, their biodegradability and the advantage of plastics for their ease of use.

The thermoplastic VEGEMAT® granules are shaped by injection moulding with or without having to make any particular adjustment to tooling.

VEGEMAT® existe is available in various grades that meet the technical requirements of industrialist.

* VEGEMAT® E4589 for making solid items (of > 4-5 mm thick).

* VEGEMAT® E45114 for slightly technical items (of between 2 and 4 mm thick).

* VEGEMAT® E45122 for making technical items (of < 2mm thick) requiring a really fluid material.

| General Information | | | |
|---------------------------------|---------------------|-------------------|-------------|
| Features | Updatable resources | | |
| | Biodegradable | | |
| Forms | Particles | | |
| Processing Method | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Density | 1.45 | g/cm ³ | ISO 1183 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 3300 | MPa | ISO 527-2 |
| Tensile Stress (Break) | 22.0 | MPa | ISO 527-2 |
| Tensile Strain (Break) | 0.67 | % | ISO 527-2 |
| Flexural Modulus | 2800 | MPa | ISO 178 |
| Flexural Stress | 35.0 | MPa | ISO 178 |
| Thermal | Nominal Value | Unit | |
| Melting Temperature | 130 - 145 | °C | |
| Additional Information | Nominal Value | Unit | |
| Maximum Hygrometry ¹ | 80 | % | |
| Utilization Temperature | 50 - 60 | °C | |
| Injection | Nominal Value | Unit | |
| Rear Temperature | 40.0 - 50.0 | °C | |
| Middle Temperature | 60.0 - 80.0 | °C | |
| Front Temperature | 100 - 130 | °C | |
| Nozzle Temperature | 110 - 150 | °C | |
| Mold Temperature | 20.0 - 60.0 | °C | |
| Injection Rate | Fast | | |
| Injection instructions | | | |

Holding duration: 2 to 5 secSolidifying duration: 10 to 20 sec

NOTE

1. without treating surface

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

