

Product Information

TECASINT – New product line of infusible high-temperature polyimides for the glass industry

In the manufacture of glass bottles for the beverage, pharmaceutical and cosmetic industries, polyimides can improve productivity. In particular, the high temperature resistance and low thermal conductivity of these high-performance plastics offer great benefits when handling hot glass. Polyimides from the TECASINT family of products are increasingly used for grabbers and delivery discs. The materials can be produced economically and help to reduce waste.

Tecasint 2000, 3000, 4000, 4100

These Tecasint product families exhibit very good long-term stability under mechanical load with a HDT/A of up to 470 °C. Furthermore, these types excel by their low thermal conductivity, good impact resistance and high modulus of elasticity.

Properties

- High thermal stability
- Insensitive under thermal shock conditions
- Very high creep resistance
- Excellent wear resistance
- Low thermal conductivity
- Break-resistant, solid and light
- High degree of toughness
- Very good to machine without dust development

Applications

- Grabbers
- Delivery discs
- Storage shelves
- Drawing blocks
- Scrapers
- Insertion linings

Overview of available types for Stock Shapes process

	TECASINT 2000	TECASINT 3000	TECASINT 4000	TECASINT 4100
unfilled	•	•	•	•
15 % graphite	•	•	•	•
40 % graphite	•			

Tecasint 2011, 3011, 4011, 4111 (unfilled)

Maximum strength, highest possible modulus and lowest thermal conductivity, high degree of purity

Tecasint 2021, 3021, 4021, 4121 (15 % graphite)

Improved abrasion resistance and thermal ageing

Tecasint 2031 (40 % graphite)

Highest degree of thermal long-term resistance

Direct moulding process

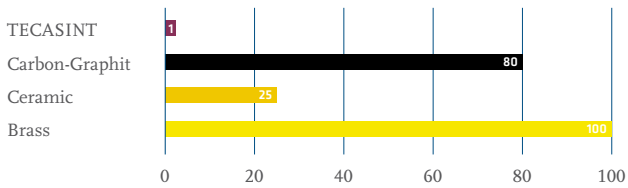
Tecasint 2000 and 3000 DF

The cost-effective direct moulding process can be used to manufacture larger volumes with these product families very economically

Overview of types suitable for direct moulding process

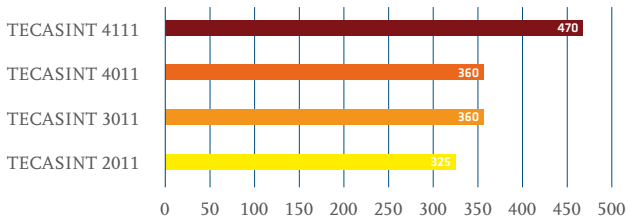
- Tecasint 2012 and 3012 (unfilled)
- Tecasint 2022 and 3022 (15 % graphite)
- Tecasint 2032 and 3032 (40 % graphite)

Thermal conductivity [W/mK]



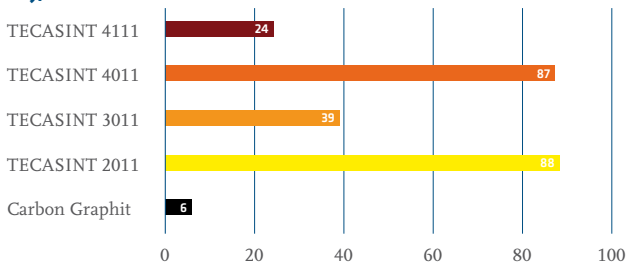
The low thermal conductivity of the Tecasint product families 2000, 3000, 4000 and 4100 in comparison to graphite avoids micro-cracks when handling glass, which can be caused by thermal shock.

Heat Distortion Temperature HDT A [°C]



The non-melting polyimides from Ensinger have an outstanding thermal long-term resistance. Even after short-term heating up to 480 °C, the TECASINT materials of the product family 4100 do not melt or soften. Strength, dimensional stability and creep resistance remain high, even in continuous operation.

Impact Resistance [kJ/m²]



Good toughness: the typical material tenacity of Tecasint has a low tendency to fracture when handling and during the production process.

Delivery Program for Stock Shapes

TECASINT 2000



Rods	250	395	500	750	1000
Standard lengths [mm]					
Ø 6 - 15	•	•			
Ø 15.8 - 19.1	•	•	•	•	•
ab Ø 20	•		•	•	•



Plates	300	300	300	300	195	195	395	395
delivery dimensions [mm]	×250	×500	×750	×1000	×195	×395	×395	×795
5 - 9.5	•	•	•	•	•			
10 - 50.8	•	•	•	•	•	•	•	•
55 - 100	•	•	•	•				

TECASINT 3000



Rods	
Standard lengths [mm]	
Ø 6 - 15	250, 500



Plates	
[mm]	
max. thickness 40	300, 500

Non-standard products
(produced to order)

TECASINT 4000



Rods	
Standard lengths [mm]	
Ø 5 - 60	250, 500, 750, 1000



Plates	
[mm]	
max. dimensions	300 x 1000
thickness	5 - 65
Standard lengths	250, 500, 750, 1000

Tubes rods upon request. Other lengths possible, also available ground. Lead time before delivery is approximately 2 weeks.

TECASINT 4100



Rods	
Standard lengths [mm]	
Ø 5 - 60	250, 500



Plates	
[mm]	
max. dimensions	300 x 500
thickness	5 - 65
Standard lengths	250, 500

Tubes rods upon request. Other lengths possible, also available ground. Lead time before delivery is approximately 2 weeks.