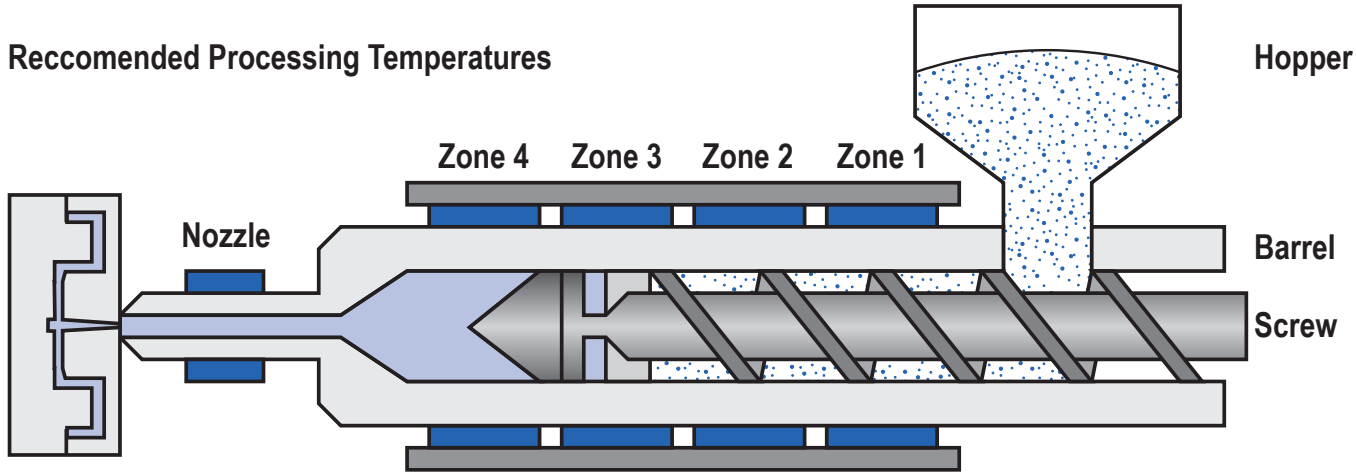
Molding Guide

ZEONEX® 790R
Medical Grade

Property	Value	Test Standard
Density	**1.01 kg/m³**	ASTM D792
Melt flow rate (MFR) (280 ºC, 21.18 N)	**6 g/10min**	JIS K719 ISO 1133
Glass transition temperature (20 ºC/min)	**158 ºC (315 ºF)**	JIS K7121
Pre-drying		
Pre-drying time	**4-8 Hours**	
Pre-drying temperature	**110 ºC (230ºF)**	

Reccomended Processing Temperatures



T_{Mold}	T_{Nozzle}	T_4	T_3	T_2	T_1	T_{Hopper}
110-150 ºC	270-310 ºC	280-320 ºC	280-320 ºC	270-310 ºC	250-290 ºC	<70 ºC
230-300 ºF	520-590 ºF	535-610 ºF	535-610 ºF	520-590ºF	480-555 ºF	<160 ºF

Molding	
Injection Pressure	**Set as low as possible to ensure shape accuracy of molded product**
Holding Pressure	**50-150 MPa**
Back Pressure	**5-20 MPa**
Screw Rotation Speed	**20-40 rpm**
Injection Speed	**5-30 mm/s**
Residence time	**Max 15 min; lower barrel temperature to 170 ºC (340 ºF)**

Notes

Typical shrinkage factor is 0.1-0.7% but varies depending on the molded part and molding conditions.

A pressurized water temperature controller is recommended for mold temperature control.

Higher mold temperatures are reccomended to increase part replication accuracy. Do not exceed the T_g of the resin.

Zeon Specialty Materials | www.zeonsmi.com | info@zeonsmi.com | +1-408-641-7889 (USA) | +49.211.52.67.0 (EU) | +81.3.3216.1769 (Asia)

ZEON

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to accuracy, suitability for particular applications or the results to be obtained therefrom. The information is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Zeon Specialty Materials, the SELLER, MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING TO THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation, nor as an inducement to practice any patented invention without permission of the patent owner.