ReZalloy Rx® 1200 Datasheet and Process Guide

Medical TPU & PEBA Alloys

Description

ReZalloy Rx®grades provide low modulus properties and exceptional bonding performance. ReZalloy Rx®grades are capable of bonding to polar substrates such as PEBA, TPU, COPE, SBC, PC, ABS, PET, etc.

Form	Pellets
Appearance	Translucent
Applications	Catheters
Markets	Medical, Healthcare
Processing Method	Extrusion, Injection Molding

Typical Material Properties

ReZalloy Rx™ Product Line					
Property	**1245A**	**1250A**	**1250A-LV**	**1260A**	**1270A**
Durometer (ASTM D2240)	45A	50A	50A	60A	65A
Tensile Strength at 50% Elongation (ASTM D412)	110 psi	125 psi	130 psi	210 psi	290 psi
Ultimate Tensile Strength (ASTM D412)	290 psi	350 psi	600 psi	910 psi	1515 psi
Ultimate Elongation (ASTM D412)	440%	470%	690%	790%	940%
Melt Flow - 190C, 2.16kg (ASTM D1238)	0.2	9	85	11	11

Drying Requirements

This material should be dried at 160°F until moisture level is less than 0.02%. To minimize material degradation due to hydrolysis, it is recommended that this material is dried prior to any heat exposure during forming or assembly processes.

Recommended Extrusion Temperatures

ReZalloy Rx™ Product Line					
Grade	**1245A**	**1250A-LV**	**1250A**	**1260A**	**1270A**
Zone 1	100 (212)	100 (212)	110 (230)	110 (230)	120 (248)
Zone 2	110 (230)	110 (230)	130 (266)	120 (248)	130 (266)
Zone 3	120 (248)	120 (248)	140 (284)	130 (266)	140 (284)
Clamp	130 (266)	130 (266)	150 (302)	140 (284)	150 (302)
Crosshead	130 (266)	130 (266)	150 (302)	140 (284)	150 (302)
Die	120 (248)	130 (266)	140 (284)	130 (266)	140 (284)

Note: Temperatures expressed in °C (°F)

Extruder and Tooling Design

ReZalloy Rx™ Extruder and Tooling Configuration	
Screw Type	General Purpose, Barrier Screw
L/D Ratio	25 - 30
Compression Ratio	3
Feed Zone Length	33%
Compression Zone Length	33%
Metering Zone Length	33%
Area Draw Ratio	2 - 16
Typical Mesh Screen Pack	20-40-80-20

Additional Process Considerations

Cooling the extruder feed throat is critical for preventing bridging or surging. ReZalloy Rx™ grades can be tacky during processing. Rollers, pullers, and additional contact points should be constructed from a suitable low friction material.

Purging

A low viscosity PEBA, LDPE, or EVA resin is recommended for purging prior to or after extrusion or injection molding. To prevent degradation and gel generation, it is recommended to maintain a slow throughput while the line is sitting idle with ReZalloy Rx™ in the barrel.

Handling

ReZalloy Rx™ grades are supplied as free-flowing pellets. The Safety Data Sheet should be consulted for other detailed guidelines.

Storage

Typical shelf life of the ReZalloy Rx™ is two years from date of delivery in unopened packaging. When not being used, the container and liner should be closed and stored in a cool dry area protected from UV light.

Disclaimer: Compounding Solutions strictly prohibit the use of ReZalloy Rx 1200 series in applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days.