

Technical Information

ELVALOY™ AC 1820

Acrylate Copolymer

Description			
Product Description	ELVALOY™ AC 1820 is a copolymer of ethylene and methyl acrylate. It is available in pellet form for use in conventional extrusion equipment designed to process polyethylene type resins.		
Restrictions			
Material Status	Commercial: Active		
Typical Characteristics			
Composition	20% By Weight Methyl Acrylate comonomer content		
Typical Properties			
Physical	Nominal Values		Test Method(s)
*Density ()	0.942 g/cm³	ASTM D792	ISO 1183
*Melt Flow Rate (190°C/2.16kg)	8 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values		Test Method(s)
*Melting Point(DSC)	92 °C (197.6 °F)	ASTM D3418	ISO 3146
Vicat Softening Point ()	54 °C (129.2 °F)	ASTM D1525	ISO 306
Processing Information			
*Maximum Processing Temperature	310 °C (590 °F)		
General Processing Information	ELVALOY™ AC 1820 is normally processed at melt temperatures ranging from 235°C - 310°C (455°F - 590°F) in extrusion coating or cast film equipment. A typical extrusion coating extruder temperature profile is given below. Actual processing temperatures will be determined by either the specific equipment or one of the other polymers in a coextrusion. ELVALOY™ AC 1820 can also be used in cast extrusions and coextrusions. It is easily processed on standard equipment used for low density polyethylene.		
Extrusion Coating/Lamination Processing	Nominal Values		
Processing Information	A suggested extrusion set temperature profile		
Feed Zone	185 °C (365 °F)		
Second Zone	235 °C (455 °F)		
Third Zone	260 °C (500 °F)		
Fourth Zone	285 °C (545 °F)		
Fifth Zone	285 °C (545 °F)		
Adapter Zone	285 °C (545 °F)		
Die Zone	285 °C (545 °F)		
FDA Status Information	ELVALOY™ AC 1820 Acrylate Copolymer Resin complies with Food and Drug Administration Regulation 21 CFR 177.1340(a) - - Ethylene-methyl acrylate copolymer resins, subject to the limitations and requirements therein. This Regulation describes polymers that may be used in contact with food, subject to the finished food-contact article meeting the extractive limitations under the intended conditions of use, as shown in paragraph (b) of the Regulation.		

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Regulatory Information

For information on regulatory compliance outside of the U.S.A., consult your local Dow representative.

Safety & Handling

For information on appropriate Handling & Storage of this polymeric resin, please refer to the material Safety Data Sheet.

A Product Safety Bulletin, material Safety Data Sheet, and/or more detailed information on extrusion processing and/or compounding of this polymeric resin for specific applications are available from your Dow representative.

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- b. use in cardiac prosthetic devices regardless of the length of time involved ("cardiac prosthetic devices" include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);
- c. use as a critical component in medical devices that support or sustain human life; or
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