



Dow Packaging & Specialty Plastics

Product Data Sheet

ELVALOY™ AC 2103

Acrylate Copolymer

General Information

Product Description ELVALOY™ AC 2103 is a copolymer of ethylene and ethyl acrylate. It is available in pellet form for use in conventional extrusion equipment designed to process polyethylene type resins.

Status

Material Status Commercial: Active

Typical Characteristics

Composition 19.5% By Weight Ethyl Acrylate comonomer content

Applications Polymer modifier, additive concentrate carrier, extrudable tie layer between polyolefins and polar polymers

Typical Properties

Physical	Nominal Values	Test Method(s)	
*Density ()	0.930 g/cm ³	ASTM D792	ISO 1183
*Melt Flow Index (190°C/2.16kg)	21 g/10 min	ASTM D1238	ISO 1133
Durometer Hardness	Shore A (82) / Shore D (27)	ASTM D2240	ISO 868
Tensile Impact Strength	240 ft-lbs/in ² / 504 KJ/m ²	ASTM 1822	
Flex Modulus - 2% Secant	6200 psi / 42.7 MPa	ASTM D790B	ISO 178
Tensile Elongation - Break	750%	ASTM D638	ISO 527-2
Tensile Elongation - Yield	11%	ASTM D638	ISO 527-2
Tensile Strength - Break	1400 psi / 9.65 MPa	ASTM D638	ISO 527-2
Tensile Strength - Yield	375 psi / 2.59 Mpa	ASTM D638	ISO 527-2

Thermal	Nominal Values	Test Method(s)	
*Melting Point (DSC)	95 °C (203 °F)	Dow Method	
Freezing Point (DSC)	78 °C (172.4 °F)	Dow Method	
Vicat Softening Point ()	49 °C (120.2 °F)	ASTM D1525	ISO 306

Processing Information

*Maximum Processing Temperature 310 °C (590 °F)

General Processing Information ELVALOY™ AC 2103 is normally processed at melt temperatures ranging from 160°C - 235°C (320°F - 455°F) in cast film and extrusion coating equipment.

A typical cast film 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 2103 can also be used in extrusion coating and coextrusions. It is easily processed on standard equipment used for low density polyethylene.

Cast Film / Sheet Nominal Values

Processing Information A suggested extrusion set temperature profile is shown below for cast film processing.

Feed Zone	135 °C (275 °F)
Second Zone	160 °C (320 °F)
Third Zone	185 °C (365 °F)
Fourth Zone	185 °C (365 °F)
Fifth Zone	185 °C (365 °F)
Adapter Zone	185 °C (365 °F)
Die Zone	185 °C (365 °F)

FDA Status Information

ELVALOY™ AC 2103 Acrylate Copolymer Resin complies with Food and Drug Administration Regulation 21 CFR 177.1320(a) - - Ethylene-ethyl acrylate copolymer resins, subject to the limitations and requirements therein. This Regulation describes polymers that may be used in contact with food, except for holding food during cooking, subject to the blend and finished food-contact article meeting the extractive limitations, as shown in paragraph (c)(2) of the Regulation. This resin must be blended with polyethylene or with one or more olefin polymers complying with Food and Drug Administration Regulation 21 CFR 177.1520, or used in a coating complying with 21 CFR 175.300 or 21 CFR 176.170 in such proportions that the ethyl acrylate content of the blend or finished coating does not exceed 8 percent by weight, in accordance with paragraph (b) of 21 CFR 177.1320.

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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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http://www.dow.com/products_services

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P&SP Disclaimer

Additional Information

To contact Dow via Toll-Free or Local Toll phone numbers in specific countries, please see the following webpage:

<https://www.dow.com/en-us/support/contact-representative.html>

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