



APPEEL™ 11D542

Peelable Resin

General Information

Product Description APPEEL™ 11D542 is a modified ethylene vinyl acetate copolymer resin designed to function as a sealing layer for lidding applications. It is most often suggested to provide interfacial peel seals film to film, and occasionally for peel seal from HDPE, LLDPE, or low %EVA films. It is available in pellet form for use in conventional extrusion or coextrusion equipment designed to process polyethylene resins.

Status

Material Status Commercial: Active

Typical Characteristics

Characteristics / Benefits Cohesive type peel seal.

Applications Interfacial Peel Seal for pouches, Peelable Lidding film to other polyolefin substrates,

Typical Properties

Physical	Nominal Values	Test Method(s)	
*Density ()	0.93 g/cm ³	ASTM D792	ISO 1183
*Melt Flow Index (190°C/2.16kg)	2.1 g/10 min	ASTM D1238	ISO 1133
Thermal	Nominal Values	Test Method(s)	
*Melting Point(DSC)	101 °C (213.8 °F)	ASTM D3418	ISO 3146
Vicat Softening Point ()	85 °C (185 °F)	ASTM D1525	ISO 306

Heat Seal Evaluation The performance of any sealant resin should be evaluated within the context of the application. The sealant is designed to bond to particular substrate(s). Many variables can affect seal strength, including the physical properties of the substrate being sealed to, thickness, flange or surface design, heat seal temperature, dwell time and pressure. The condition and type of the sealing equipment used, such as roller sealers versus platen seal mechanisms can make a significant difference.

In most cases sealant peel strength is used as a measure of performance. Although this is a convenient test, peel strength is affected not only by substrate adhesion but also by peel angle, separation rate, ambient temperature, tensile and modulus properties of the materials, and often by the time elapsed since the formation of the bond.

If sealant peel strength is used as a measure of sealant performance, it is imperative that peel strength be evaluated not only at the time of initial heat sealing the lid to the substrate, but throughout the life of the product and under all the conditions to which the sealant will be exposed. Only then does peel strength provide a reliable indication of adhesive performance in the specific application.

Processing Information

***Maximum Processing Temperature** 235 °C (455 °F)

General Processing Information If the process is stopped for short periods of time, the screw for the APPEEL™ extruder should be kept turning at a low rpm to keep material flowing.

After processing APPEEL™, purge the material out using a polyethylene resin, preferably with a lower melt flow rate than the APPEEL™ resin in use. The "Disco Purge Method" is suggested as the preferred purging method, as this method usually results in a more effective purging process. Information on the Disco Purge Method can be obtained via your Dow Sales Representative.



Never shut down the extrusion system with APPEEL™ in the extruder and die. Properly purge out the APPEEL™ with a polyethylene, and shut down the line with polyethylene or polypropylene in the system.

Blown Film

Nominal Values

Processing Information

A suggested initial extruder temperature profile

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

APPEEL™ 11D542 resin complies with Food and Drug Administration Regulation 21 CFR 175.105 - - Adhesives. This Regulation describes adhesives that may be used as components of articles intended for use in packaging, transporting, or holding food, subject to the limitations and requirements therein.

APPEEL™ 11D542 resin also complies with Food and Drug Administration Regulation 21 CFR 177.1350 - - Ethylene-vinyl acetate copolymers, 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)(1) of the Regulation.

The information and certifications provided herein are based on data we believe to be reliable, to the best of our knowledge. The information and certifications apply only to the specific material designated herein as sold by Dow and do not apply to use in any process or in combination with any other material. They are provided at the request of and without charge to our customers. Accordingly, Dow cannot guarantee or warrant such certifications or information and assumes no liability for their use.

