

DuPont™ Appeel® 72D811

Appeel® resins Product Data Sheet

Description

Product Description DuPont™ Appeel® 72D811 resin is designed to be a sealing layer to film or sheet lidding applications. It provides a peelable seal to a number of materials including HDPE, LLDPE, LDPE, EVA, and Ionomer.

Appeel® 72D811 is a modified ethylene acrylate polymer available in pellet form for use in conventional extrusion and coextrusion equipment designed to process polyethylene resins.

Restrictions

Material Status • Developmental: Active

Typical Characteristics

Uses • Lidding Sealant

Characteristics / Benefits Appeel® 72D811 can be processed in blown film and cast film processes.

Typical Properties

Physical	Nominal Values	Test Method(s)	
* Density ()	0.93 g/cm ³	ASTM D792	ISO 1183
* Melt Flow Rate (190°C/2.16kg)	6.9 g/10 min	ASTM D1238	ISO 1133

Thermal	Nominal Values	Test Method(s)	
* Melting Point (DSC)	94°C (201°F)	ASTM D3418	ISO 3146

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

General

- * Maximum Processing Temperature 260°C (500°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 DuPont 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 Processing

Nominal Values

Blown Film Processing Information Blown Film: In blown film coextrusion processes the temperature of the Appeel® 72D811 should be maintained in the 160 - 185° C range.

Following is an example of a suggested temperature profile for blown film processing. Adjustments would then be made to suit the individual process and applications needs.

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	173°C (343°F)

Cast Film / Sheet Processing

Nominal Values

Cast Film / Sheet Processing Cast Film: In cast film coextrusion processes the temperature of the Appeel® 72D811 should be maintained in the 185 - 235° C range.

Following is an example of a suggested temperature profile for cast film processing. Adjustments would then be made to suit the individual process and applications needs.

Feed Zone	135°C (275°F)
Second Zone	160°C (320°F)
Third Zone	185°C (365°F)
Fourth Zone	210°C (410°F)
Fifth Zone	210°C (410°F)
Adapter Zone	210°C (410°F)
Die Zone	210°C (410°F)

FDA Status Information

Appeel® 72D811 resin complies with Food and Drug Administration Regulation 21 CFR 177.1330, 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 (c) 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 DuPont 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, DuPont cannot guarantee or warrant such certifications or information and assumes no liability for their use.

Regulatory Information

In Europe a diversity of regulations apply in various countries. In addition, constant changes linked to the effort of their harmonization under the umbrella of European Union Directive can be observed. This makes it impossible to accurately describe the food contact status in this brochure. Updated statements describing the situation in the various European countries can be obtained through your local sales representative.

Safety & Handling

A Product Safety Bulletin, Material Safety Data Sheet, and more detailed information on compounding and processing Appeel® Lidding Sealant Resins for specific applications are available from your DuPont Packaging and Industrial Polymers representative

Read and Understand the Material Safety Data Sheet (MSDS) before using this product

Regional Centres

DuPont operates in more than 70 countries. For help finding a local representative, please contact one of the following regional customer contact centers:

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This data sheet is effective as of 01/11/2011 02:46:58 PM and supersedes all previous versions.

