

DuPont™ Appeel® 11D625

Appeel® resins Product Data Sheet

Description

Product Description

DuPont™ Appeel® 11D625 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 strong peelable seals to polypropylene, and moderate seals to polystyrene, polyester, PVC and is available in pellet form for use in conventional extrusion or coextrusion equipment designed to process polyethylene resins.

Restrictions

Material Status

- Developmental: Active

Typical Characteristics

Uses

- Lidding Sealant

Typical Properties

Physical

Density ()

Nominal Values

0.94 g/cm³

Test Method (s)

ASTM D792

ISO 1183

Melt Flow Rate (190°C/2.16kg)

7.3 g/10 min

ASTM D1238

ISO 1133

Thermal

Melting Point (DSC)

Nominal Values

94°C (201°F)

ASTM D3418

ISO 3146

Vicat Softening Point ()

68°C (154°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

General

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 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.

Extrusion Coating /Lamination Processing	Nominal Values
Extrusion Processing Information	<p>Extrusion Coating: The melt temperature of Appeel® 11D625 should be maintained in the 210 - 235°C range in extrusion coating processes. Selection of a specific melt temperature will depend on screw configuration, potential power limitations, and the need to match melt viscosities. However, melt temperatures above 238C (460F) should be avoided because of possible thermal degradation of the resin.</p> <p>Following is an example for suggested temperature profile on the high side of the processing range. Lower temperatures in the final metering zone, adapter and die are suggested if compatible with the process and application.</p>
Feed Zone	135°C (275°F)
Second Zone	185°C (365°F)
Third Zone	210°C (410°F)
Fourth Zone	235°C (455°F)
Fifth Zone	235°C (455°F)
Adapter Zone	235°C (455°F)
Die Zone	235°C (455°F)

FDA Status Information	Appeel® 11D625 Lidding Sealant Resin complies with Food and Drug Administration Regulation 21 CFR 175.320 - - Resinous and polymeric coatings for polyolefin films, subject to the limitations and requirements therein. This Regulation describes resinous and polymeric coatings for polyolefin films 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).
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	<p>As with any hot material, care should be taken to protect the hands and other exposed parts of the body when working with molten polymer. At temperature ranges above 238°C (460°F), this resin can evolve low concentrations of fumes. When resins are overheated, more extensive decomposition may occur. Adequate local ventilation should be provided to remove the fumes from the work area. Disposal of scrap presents no special problems and can be by landfill or incineration in a properly operated incinerator. Disposal should comply with local, state, and federal regulations. Resin pellets can be a slipping hazard. Loose pellets should be swept up promptly to prevent falls.</p> <p>For more detailed information on the safe handling and disposal of resins, a Product Safety Bulletin and OSHA Material Safety Data Sheet can be obtained from the regional office serving you.</p>

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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