



DuPont™ Surlyn® 8527

Description

Product Description

DuPont™ Surlyn® 8527 thermoplastic resin is an advanced ethylene/methacrylic acid (E/MAA) copolymer, in which the MAA acid groups have been partially neutralized with sodium ions. The amount of MAA and neutralization levels for this grade result in excellent clarity and abrasion resistance. The resin can be injection or blow molded, and is processable by extrusion into sheets or shapes. It complies with the provisions of U.S. Food and Drug Administration (FDA) Title 21 Code of Regulations 177:1330.

Product Characteristics

Processing Method

- Blow Molding
- Injection Molding
- Extrusion, Sheet

Material Status

- Commercial: Active

Availability

- Globally

Cation Type

- Na

Uses

- not yet determined

Manufacturer / Supplier

- DuPont Packaging & Industrial Polymers

Properties

Physical

Density

Nominal Values
0.94g/cm³

Test Method
ASTM D792 – ISO 1183

Melt Flow Rate (E (weight = 2160 g))

1.3g/10 min

ASTM D1238 – ISO 1133

Thermal

Brittle Temperature

Nominal Values
–95°C (–139°F)

Test Method
ASTM D746

Melting Point (DTA)

199°F (93°C)

ASTM D3418 – ISO 3146

Vicat Softening Point (Rate B)

163°F (73°C)

ASTM D1525 – ISO 306

CLTE, Flow (–20°C to 32°C)

140µm/m/°C

ASTM D696

Freezing Point (DTA)

151°F (66°C)

ASTM D3418

Mechanical

Abrasion Resistance

Nominal Values
600NBS Index

Test Method
ASTM D1630

Flexural Modulus (73 °F)

220MPa (31908psi)

ASTM D790

Flexural Modulus (–4 °F)

576MPa (83542psi)

ASTM D790

Ross Flex (compression molded, 3.2 mm thick, pierced 2.5 mm wide, 73 °F)	300cycles	ASTM D1052
Ross Flex (-20 °F)	100cycles	ASTM D1052
Tensile Elongation @ Break (73 °F)	450%	ASTM D638 – ISO 527-2
Tensile Strength @ Break (73° F)	29MPa (4206psi)	ASTM D638 – ISO 527-2
Tensile Strength @ Yield (Type IV bars, compression molded, 5.0 cm/min, 73 °F)	12.4MPa (1798psi)	ASTM D638
Impact	Nominal Values	Test Method
Notched Izod Impact (73 °F)	11.4ft-lb/in	ASTM D256
Tensile Impact Strength (73 °F)	550ft-lb/in ²	ASTM D1822
Tensile Impact Strength (-40 °F)	445ft-lb/in ²	ASTM D1822
Hardness	Nominal Values	Test Method
Durometer Hardness (Shore D)	60	ASTM D2240 – ISO 868
Optical	Nominal Values	Test Method
Haze (0.250 in)	6%	ASTM D1003
Elastomer	Nominal Values	Test Method
Tear Strength (73 °F)	not yet determined	ASTM D624

Processing Information

FDA Status

Surlyn® industrial resins are available that comply with US FDA 21 CFR 177.1330. For more information contact your DuPont sales office.

Safety & Handling

Surlyn® 8527 as supplied by DuPont is not considered a hazardous material. As with any hot material, care should be taken to protect the hands and other exposed parts of the body when handling molten polymer. At recommended processing temperatures, small amounts of fumes may evolve from the resins. When resins are overheated, more extensive decomposition may occur. Adequate 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.

For more detailed information on the safe handling and disposal of DuPont resins, a Product Safety Bulletin and OSHA Material Safety Data Sheet can be obtained from the DuPont Packaging Products sales office serving you.

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

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