

Surlyn® 8320

DuPont Packaging & Industrial Polymers - Ethylene Methacrylic Acid

Monday, September 21, 2020

General Information

Product Description

DuPont™ Surlyn® 8320 is an ionomer of ethylene acid acrylate terpolymer.

This polymeric material can be processed in conventional extrusion and injection equipment designed to process polyethylene and ethylene copolymer type resins, to create various shapes and sheeting.

| General | | | |
|-------------------|---|--|-------------------------------------|
| Material Status | Commercial: Active | | |
| Availability | Africa & Middle East Asia Pacific | EuropeLatin America | North America |
| Features | Low Hardness | Sodium Ionomer | Terpolymer |
| Uses | • Sheet | | |
| Forms | Pellets | | |
| Processing Method | Extrusion | Injection Molding | Sheet Extrusion |

| ASTM & ISO Properties ¹ | | | | | | |
|---|---------------|-----------|-------------|--|--|--|
| Physical | Nominal Value | Unit | Test Method | | | |
| Density / Specific Gravity | 0.952 | | ASTM D792 | | | |
| Density | 0.950 | g/cm³ | ISO 1183 | | | |
| Melt Mass-Flow Rate (190°C/2.16 kg) | 1.0 | g/10 min | ASTM D1238 | | | |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 1.0 | g/10 min | ISO 1133 | | | |
| lon Type | Sodium | | | | | |
| Mechanical | Nominal Value | Unit | Test Method | | | |
| Tensile Strength ² (Yield, 73°F, Compression Molded) | 450 | psi | ASTM D638 | | | |
| Tensile Strength (Break, 73°F) | 2700 | psi | ASTM D638 | | | |
| Tensile Stress (Break, 73°F) | 2700 | psi | ISO 527-2 | | | |
| Tensile Elongation (Break, 73°F) | 560 | % | ASTM D638 | | | |
| Tensile Strain (Break, 73°F) | 560 | % | ISO 527-2 | | | |
| Flexural Modulus (73°F) | 4390 | psi | ASTM D790 | | | |
| Abrasion Resistance - NBS Index | 61.0 | | ASTM D1630 | | | |
| Impact | Nominal Value | Unit | Test Method | | | |
| Tensile Impact Strength (73°F) | 606 | ft-lb/in² | ASTM D1822 | | | |
| Hardness | Nominal Value | Unit | Test Method | | | |
| Durometer Hardness (Shore D) | 36 | | ASTM D2240 | | | |
| Shore Hardness (Shore D) | 36 | | ISO 868 | | | |
| Thermal | Nominal Value | Unit | Test Method | | | |
| Vicat Softening Temperature | 117 | °F | ASTM D1525 | | | |
| Vicat Softening Temperature | 117 | °F | ISO 306 | | | |
| Peak Melting Temperature | 158 | °F | ASTM D3418 | | | |
| Melting Temperature (DSC) | 158 | °F | ISO 3146 | | | |
| Freezing Point | | | | | | |
| | 100 | °F | ASTM D3418 | | | |
| | 100 | °F | ISO 3146 | | | |



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| Optical | Nominal Value U | Jnit | Test Method |
|------------------------|-----------------|------|-------------|
| Haze (250.0 mil) | 26.6 | % | ASTM D1003 |
| Additional Information | | | |

Cation Type: Sodium

Notes

¹ Typical properties: these are not to be construed as specifications.



² Type IV, 2.0 in/min