

Soarnol[®] A4412

ETHYLENE VINYL ALCOHOL COPOLYMER

44 mol% Ethylene Content

Applications

Soarnol A4412 is a 44 mol% ethylene content standard grade of Soarnol with a high melt flow rate. Soarnol A4412 has excellent water resistance and its gas barrier property is not drastically lower at high humidity. This resin is primarily used in coextruded film and coextrusion coating applications.

General Properties

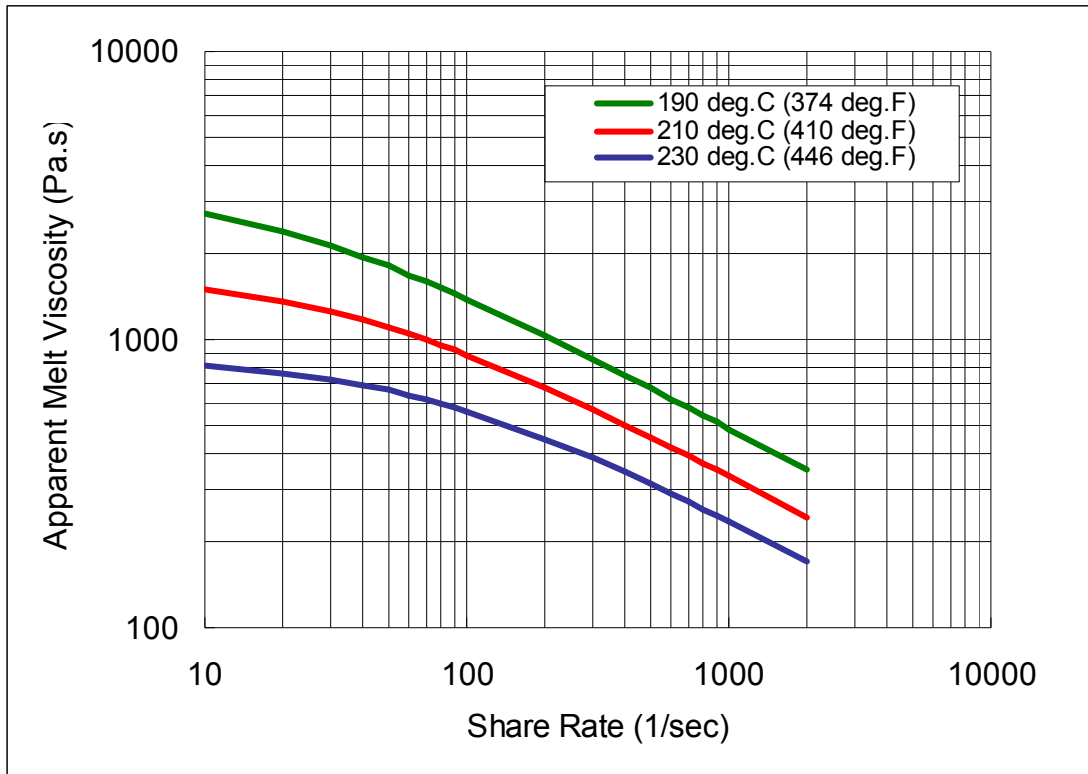
| <i>Properties</i> | <i>Unit</i> | <i>Value</i> |
|--|---------------------------------------|--------------|
| Ethylene Content | mol% | 44 |
| MFR ¹⁾ (210 degree C, 2160g) | g/10min | 12 |
| Volatile Matter | % | < 0.3 |
| Melting Point ²⁾ | degree C | 164 |
| Crystallization Temperature ²⁾ | degree C | 144 |
| Glass Transition Temperature ²⁾ | degree C | 55 |
| Oxygen Permeability (20C, 65%RH) ³⁾ | cc 20um / m ² day atm | 1.5 |
| | cc mil / 100inch ² day atm | 0.076 |

1): Measured with Melt Indexer

2): Measured with DSC, both heating and cooling speeds of 10 C/min

3): Measured with OXTRAN 10/50 (MOCON)

Melt Viscosity



Example of Processing

- Extruder: 40 mm ϕ Single screw extruder, L/D = 28
- Screw: Full-flighted, constant pitch type, CR = 3.5
- Screen pack: 80/120/50 mesh
- Die: Manifold type, die width = 450 mm, lip clearance = 0.2 mm

Processing Temperature

| | B ₁ | B ₂ | B ₃ | B ₄ | B ₅ | A |
|-------|----------------|----------------|----------------|----------------|----------------|-----|
| deg.C | 170 | 190 | 210 | 220 | 220 | 220 |
| deg.F | 338 | 374 | 410 | 428 | 428 | 428 |

Quality and Safety for Application of Soarnol A4412

High quality Soarnol is produced by NOLTEX L.L.C. in U.S.A. and Mizushima plant in Japan. Both plants are certified to meet the requirement of ISO 9001.

Soarnol contains no heavy metals or other harmful substances. Soarnol meets the Food Sanitation Standards of various countries.

U.S.A: US FDA 21, C.F.R. § 177.1360
JAPAN: Voluntary Regulation Standard of Sanitation Council for Polyolefin, etc., Ministry of Health and Welfare (Notification No. 370)
EU: Directive 90/128/EEC

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