

Product Data Sheet

Eastman Cadence™ Copolyester GS4

Application/Uses

- Appliance films
- Architectural laminates
- Automotive films
- Bags
- Decorative laminates
- Electronic laminates
- Floor coverings
- Furniture/Furniture trim
- Labels
- Outdoor films
- Packaging
- Printable films
- Shrink film
- Transaction cards
- Transportation laminates
- Wall coverings

Product Description

Eastman Cadence™ GS4 is a high-flow amorphous copolyester for film calendering. Calendered films made of Eastman Cadence™ copolyester are non-crystallizing, are halogen-free, offer wide calendering and thermoforming windows and have good low-temperature toughness. They are cooperative in secondary operations such as solvent-bonding, lamination, decoration, cold-forming, punching/cutting and embossment.

Eastman Cadence™ resins require no pre-drying or additional stabilizers.

This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.

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This product has been CRADLE TO CRADLE CERTIFIED^{cm} Silver.

The CRADLE TO CRADLE CERTIFIED^{cm} Mark is a registered certification mark used under license through McDonough Braungart Design Chemistry (MBDC). MBDC is a global sustainability consulting and product certification firm. The CRADLE TO CRADLE® framework moves beyond the traditional goal of reducing the negative impacts of commerce ('eco-efficiency'), to a new paradigm of increasing its positive impacts ('eco-effectiveness'). At its core, Cradle to Cradle design perceives the safe and productive processes of nature's 'biological metabolism' as a model for developing a 'technical metabolism' flow of industrial materials. Product components can be designed for continuous recovery and reutilization as biological and technical nutrients within these metabolisms. For more information about MBDC and to obtain printable certificates for Eastman Copolyesters, visit www.mbdc.com. Choose Eastman Chemical

Typical Properties (Preliminary)

Property ^a	Test ^b Method	Typical Value, Units ^c
General Properties		
Density	D 1505	1.28 g/cm ³
Oxygen Index	D 2863	24.7%
Water Absorption, 24 h immersion	D 570	0.15%
Electrical Properties		
Dielectric Constant		
1 kHz	D 150	3.20
1 MHz	D 150	2.95
Dissipation Factor		
1 kHz	D 150	0.017
1 MHz	D 150	0.022
Arc Resistance	D 495	134 sec
Volume Resistivity	D 257	4.55 x 10 ¹⁶ ohm·cm
Surface Resistivity	D 257	1.99 x 10 ¹⁶ ohms/square
Dielectric Strength, Short Time, 500 V/sec rate-of-rise	D 149	15.5 kV/mm (394 V/mil)
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	68°C (154°F)
@ 1.82 MPa (264 psi)	D 648	63°C (145°F)
Vicat Softening Temperature	D 1525	79°C (174°F)
Coefficient of Linear Thermal Expansion @ -30°C to 30°C (-22°F to 86°F)	D 696	7.61 x 10 ⁻⁵ /°C (mm/mm·°C) (4.23 x 10 ⁻⁵ /°F (in./in.·°F))
Specific Heat		
@ 60°C (140°F)	DSC	1.3 kJ/kg·K (0.31 Btu/lb·°F)
@ 100°C (212°F)	DSC	1.7 kJ/kg·K (0.41 Btu/lb·°F)
@ 150°C (302°F)	DSC	1.8 kJ/kg·K (0.44 Btu/lb·°F)
@ 200°C (392°F)	DSC	2.0 kJ/kg·K (0.47 Btu/lb·°F)
@ 250°C (482°F)	DSC	2.1 kJ/kg·K (0.49 Btu/lb·°F)
Glass Transition Temperature (T _g)	DSC	80°C (176°F)

^a Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^b Unless noted otherwise, the test method is ASTM.

^c Units are in SI or US customary units.

Comments

Properties reported here are based on limited testing. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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