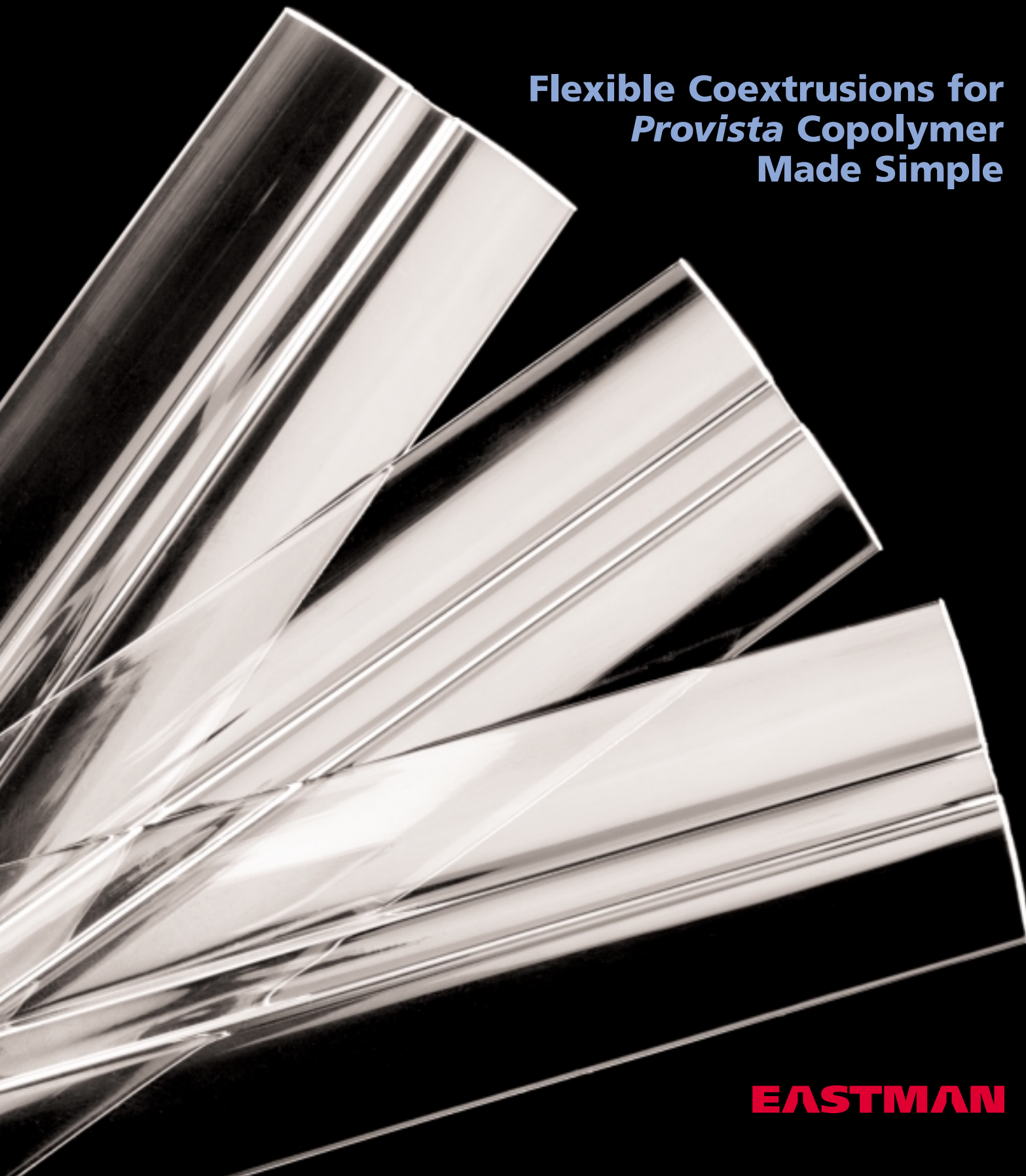


NEOSTAR
elastomer

**Flexible Coextrusions for
Provista Copolymer
Made Simple**



EASTMAN

INTRODUCTION

Eastman Chemical Company has developed an exciting new flexible material—*NeoStar* elastomer—to help support the growth of its *Provista* copolymer. The elastomer is designed for profiles needing a flexible material that will coextrude with a rigid material and is available in three formulas that offer different degrees of flexibility. Examples of flexible coextrusions include flexible hinges as well as flexible fins used in the retail-pricing arena.

NeoStar elastomer bonds extremely well with *Provista* copolymer, which was developed by Eastman as the next evolution in profiles. The copolymer has established a global market presence in a very short time in applications as diverse as pricing channels, shelf dividers, packaging tubes, and pen barrels.

When your coextrusion calls for maximum clarity without compromising toughness or flexibility, count on Eastman's *NeoStar* elastomer. In addition to these benefits it offers:

- ▶ A full range of flexibility and memory.
- ▶ Tough, durable bonds.
- ▶ Improved bond strengths at reduced hinge thickness when compared to competitive products.
- ▶ An environmentally preferred, nonhalogenated material.
- ▶ Clean incineration, no toxic gases.
- ▶ Seamless coextrusion.
- ▶ A broad processing window.

When your coextrusion calls for maximum clarity without compromising toughness or flexibility, count on Eastman's *NeoStar* elastomer.

PROCESSING CONDITIONS

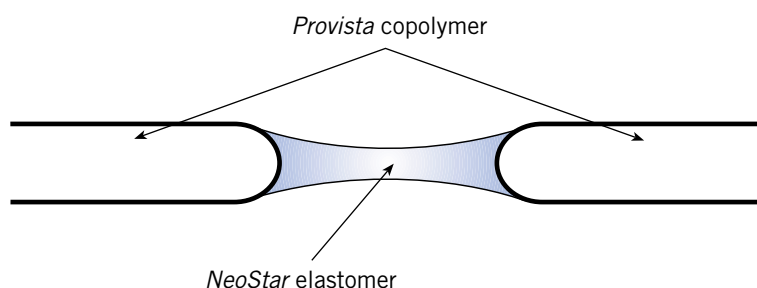
- ▶ Process in a water bath.
- ▶ Cool rapidly to stop crystallization from occurring. Testing has shown that an 8–10 ft minimum water bath is required with the water temperature at 12°C (55°F) to ensure desired clarity and flexibility.
- ▶ Cool completely prior to exiting the water bath to prevent additional crystallization that can occur while cutting in lengths, packaging, or storing, minimizing flexibility.
- ▶ Process between 204° to 260°C (400° to 500°F). Operators can adjust temperatures in this range along with screw speed to manipulate desired thickness of the flexible hinge. Material is very strong even in a very small thickness such as 0.010 in.

DRYING

- ▶ Prior to processing, dry *NeoStar* elastomer at 65°C (150°F) for a minimum of 4 hours using a desiccant bed dryer. This type of dryer provides drying air with a dew point of -40°C (-40°F) or lower.
- ▶ For the thermoplastic polyurethane elastomers (*Elastollan*, *Texin*, *Pellethane*), dry 4 hours at 71°C (160°F).

DESIGN

When designing the die for coextrusion, the center of the hinges should be smaller than the edges bonding with *Provista* copolymer to aid flexibility at the bending point of the hinge.



ELASTOMER OPTIONS FOR COEXTRUSION WITH PROVISTA COPOLYMER

Material	Supplier	Bond Strength	Appearance	Flexibility
<i>Elastollan</i> S80A15	BASF	Excellent	Opaque/Translucent	Good
<i>Elastollan</i> 1180A19	BASF	Excellent	Clear	Good
<i>Elastollan</i> LP9233	BASF	Excellent	Opaque/Translucent	Excellent
<i>NeoStar</i> Elastomers	Eastman	Excellent ^a	Clear	Good
<i>Pellethane</i> 2355-75	Dow	Excellent	Clear	Excellent
<i>Texin</i> 985	Bayer	Excellent	Clear	Excellent
<i>Texin</i> 285	Bayer	Excellent	Clear	Excellent

^aIn-house testing indicated that *NeoStar* elastomer provides improved bond strengths at reduced hinge thickness when compared to competitive products.

EASTMAN

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Material Safety Data Sheets providing safety precautions that should be observed in handling and storing Eastman products are available online or on request. You should obtain and review the available material safety information before handling any of these products. If any materials mentioned are not Eastman products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

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