

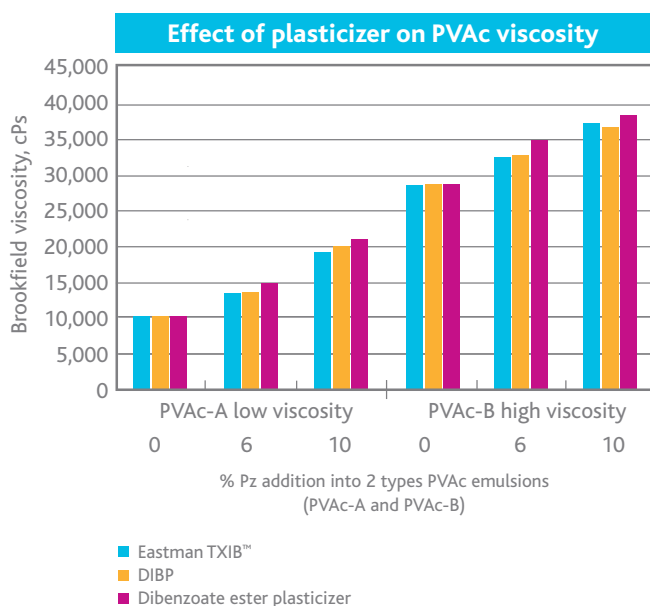
Non-phthalate plasticizer for polyvinyl acetate (PVAc) emulsion adhesives in woodworking and bookbinding

Eastman TXIB™ formulation additive is compatible with PVAc emulsion used in woodworking and bookbinding. It is a non-phthalate plasticizer that can be used to replace dibutyl phthalate. In PVAc emulsions, Eastman TXIB™

- Increases emulsion viscosity
- Reduces the T_g of the system, allowing better low-temperature performance
- Is phthalate-free, offering a more sustainable system

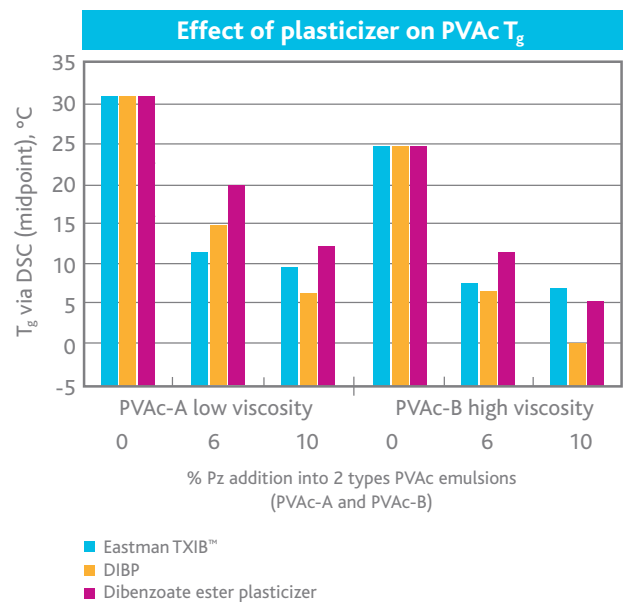
Viscosity response

Eastman TXIB™ formulation additive imparts significant increase in viscosity to PVAc emulsion when added at 6–10%. Based on a number of in-house evaluations, the degree of viscosity improvements vary with different PVAc systems. Typically, for lower viscosity PVAc, significant improvement was observed when Eastman TXIB™ was added at 6–10%. For higher viscosity systems, 10% addition is recommended to allow considerable viscosity improvement.



T_g suppression response

When added at 6–10%, Eastman TXIB™ formulation additive imparts better T_g suppression when compared with benzoate plasticizers. In many of the PVAc emulsions evaluated, adding Eastman TXIB™ at 6–10% reduced the T_g of PVAc from above 30°C to less than 20°C and 15°C, respectively.



Food contact regulatory status

Eastman TXIB™ formulation additive has received clearance by the U.S. FDA for use in certain food-contact applications described in 21 CFR 175.105, 21 CFR 177.1200, 21 CFR 178.3740 and FCN Nos. 224 and 597. It is also listed in EU Directive 2002/72/EC (PM/Ref 95020).

Typical properties

Empirical formula	C ₁₆ H ₃₀ O ₄
Specific gravity @ 20°C	0.942–0.948
Surface tension @ 25°C	28 dynes/cm
Boiling point @ 760 mm Hg	281°C
Freezing point	–70°C
Viscosity, Brookfield @ 25°C with #1 spindle	9 cP

To find out more about the secure supply and efficiency of Eastman TXIB™ formulation additive in increasing viscosity and lowering T_g, call your Eastman representative today.

EASTMAN

Eastman Chemical Company Corporate Headquarters

P.O. Box 431
Kingsport, TN 37662-5280 U.S.A.
Telephone:
U.S.A. and Canada, 800-EASTMAN
(800-327-8626)
Other Locations, (1) 423-229-2000
Fax: (1) 423-229-1193

Eastman Chemical Latin America

9155 South Dadeland Blvd.
Suite 1116
Miami, FL 33156 U.S.A.
Telephone: (1) 305-671-2800
Fax: (1) 305-671-2805

Eastman Chemical B.V.

Fascinatio Boulevard 602–614
2909 VA Capelle aan den IJssel
The Netherlands
Telephone: (31) 10 2402 111
Fax: (31) 10 2402 100

Eastman (Shanghai) Chemical Commercial Company, Ltd. Jingan Branch

1206, CITIC Square
No. 1168 Nanjing Road (W)
Shanghai 200041, P.R. China
Telephone: (86) 21 6120-8700
Fax: (86) 21 5213-5255

Eastman Chemical Japan, Ltd.

AIG Aoyama Building 5F
2-11-16 Minami Aoyama
Minato-ku, Tokyo 107-0062 Japan
Telephone: (81) 3-3475-9510
Fax: (81) 3-3475-9515

Eastman Chemical Asia Pacific Pte. Ltd.

#05-04 Winsland House
3 Killiney Road
Singapore 239519
Telephone: (65) 6831-3100
Fax: (65) 6732-4930

Material Safety Data Sheets providing safety precautions, that should be observed when handling and storing Eastman products, are available online or by 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.

Neither Eastman Chemical Company nor its marketing affiliates shall be responsible for the use of this information, or of any product, method or apparatus mentioned, and you must make your own determination of its suitability and completeness for your own use, for the protection of the environment and for the health and safety of your employees and purchasers of your products. NO WARRANTY IS MADE OF THE MERCHANTABILITY OR FITNESS OF ANY PRODUCT, AND NOTHING HEREIN WAIVES ANY OF THE SELLER'S CONDITIONS OF SALE.

Eastman and TXIB are trademarks of Eastman Chemical Company.

All other trademarks are the property of their respective owners.

© Eastman Chemical Company, 2010.