

**TECHNOLOGY ASSESSMENT OF
CERTAIN AROMATIC POLYIMIDES**
(unfilled, infusible, ≤ 0.254 mm)

The Bureau of Industry and Security's (BIS) Office of Technology Evaluation assessed U.S. dual-use export controls on unfilled, infusible polyimides of thicknesses not exceeding 0.254 mm, currently classified in the Export Administration Regulations (EAR) under export control classification number (ECCN) 1C008.a.3. Polyimides are a high-performance material used in a variety of demanding applications, including electrical insulation, flexible printed circuit boards, pressure sensitive tape, liquid crystal displays, satellites, and semiconductors.

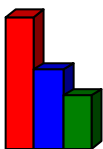
BIS examined:

- BIS's application of the 1C008.a.3 control and related licensing practices;
- Foreign export control practices;
- Economic status of the polyimide sector; and
- Foreign availability (i.e., availability-in-fact, non-U.S. source, sufficient quantity, and comparable quality).

Major findings:

- Polyimide products classified under 1C008.a.3 are predominantly used in low-tech applications as compared to thicker or coated/laminated polyimides controlled under 1A003, which are used in more sensitive dual-use applications (e.g., space and satellite);
- Evidence of foreign availability exists from Wassenaar Arrangement members and other (e.g., China, Taiwan) sources;
- The relationship between ECCNs 1A003 and 1C008.a.3 is confusing and can result in interpretations that appear to undermine the intent of the EAR's control parameters; and
- Disparate implementation of export control practices will likely contribute to further erosion in the United States' share of the global market for the affected classes of polyimide products.

Accordingly, BIS recommends review of continuing export controls on unfilled, infusible polyimides of thicknesses not exceeding 0.254 mm.



**Office of Technology
Evaluation**

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