

# SEMI P37

Thomas White  
ISMT-AMD

1-512-356-7672

February 23, 2003

- **Published in November 2002 (SEMI P37-1102).**
- **Proposed changes from Oct. 2002 meetings continued until chucking and carrier standards are released.**
- **Next blue ballot submission deadline: 4/24/03.**

# New ASML suggestions

---

- Paragraph 7.2 current:

**Substrate materials shall conform to thermal expansion characteristics defined in Table 3 over the entire range of temperature listed and at all spatial points within the substrate.**

- Proposed:

**Substrate materials shall conform to thermal expansion characteristics defined in Table 3. The temperature range for CTE requirement of 19-25 deg C is a range of temperatures over which for any single temperature the instantaneous CTE must be within spec. The thermal expansion characteristics apply at all spatial points within the substrate as well.**

# New ASML suggestions

---

- Paragraph 7.2.1 current:

**The thermal expansion properties of the substrate are defined in four classes. The particular class of thermal expansion material used shall be agreed upon between user and supplier. The thermal expansion properties of the substrate are defined over the entire temperature range shown in Table 3.**

- Proposed:

**The thermal expansions properties of the substrate are defined in four classes. The particular class of the thermal expansion material used shall be agreed upon between supplier and user. The thermal expansion properties of the substrate are defined in Table 3. In each case, mean CTE is taken over the entire reticle substrate and over a range of +/-0.5 deg C about any temperature within 19-25 deg C. (In the context of the ASMT specification, the delta T for the mean CTE calculation is one degree C.) If the substrate suppliers expect to be able to manufacture and sell substrates that have CTE specifications lower than Class A, then the definitions of the classes might be tightened or additional classes provided.**