

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of October No. 2 2006

TOWER SEMICONDUCTOR LTD.
(Translation of registrant's name into English)

RAMAT GAVRIEL INDUSTRIAL PARK
P.O. BOX 619, MIGDAL HAEMEK, ISRAEL 23105
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes No

On October 30, 2006, Tower Semiconductor announces it Earns Platinum Mark Award from Standards Institute of Israel for Quality, Safety, Information Security and Environmental Systems, attached hereto is a copy of the press release.

This Form 6-K is being incorporated by reference into all effective registration statements filed by us under the Securities Act of 1933.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TOWER SEMICONDUCTOR LTD.

Date: October 30, 2006

By: /s/ Nati Somekh Gilboa

Nati Somekh Gilboa
Corporate Secretary

TOWER SEMICONDUCTOR EARNS PLATINUM MARK AWARD FROM
STANDARDS INSTITUTE OF ISRAEL FOR QUALITY, SAFETY,
INFORMATION SECURITY AND ENVIRONMENTAL SYSTEMS

PRESTIGIOUS PLATINUM MARK AWARD RECEIVED BY VERY FEW COMPANIES IN ISRAEL

MIGDAL HAEMEK, ISRAEL - OCTOBER 30, 2006 - Tower Semiconductor, Ltd., a pure-play independent specialty wafer foundry (NASDAQ: TSEM; TASE: TSEM), today announced it has achieved the Standards Institute of Israel's (SII) highest honor, the 'Platinum' Mark which is earned by companies that have achieved more than five separate certifications.

Tower Semiconductor earned this award by receiving the following six distinct certifications:

- o ISO 9000-2001
- o QS9000
- o Automotive TS16949 standard
- o Safety SI 18001
- o Information Security ISO 17799
- o Environment ISO 14001 standard

The Platinum Mark was awarded to the company by Israel's Minister of Industry and Commerce, the honorary Mr. Eli Ishai, and by the General Manager of the SII, Mrs. Ziva Patir.

The SII conducted a comprehensive audit of Tower's quality, safety, environment and information security systems and programs for the various certifications.

"The prestigious Platinum Mark is recognition of Tower's commitment to quality and excellence. It places Tower among the handful top Israeli organizations who earned the Platinum Mark" said Ziva Patir, General Manager of the SII.

"Our attainment of the Platinum status, as a culmination of the half dozen different certifications already achieved, exemplifies our strong commitment to maintain and improve quality, safety, information security and performance standards that benefit our customers, partners and employees," said Amnon Ben Ishai, senior vice president, operations of Tower Semiconductor. "Achieving this status is a very important milestone in our strategic roadmap, as we expand our fabrication capacity and diversify our product offerings to a growing number of customers."

ABOUT TOWER SEMICONDUCTOR LTD.

Tower Semiconductor Ltd. is a pure-play independent specialty foundry established in 1993. The company manufactures integrated circuits with geometries ranging from 1.0 to 0.13 micron; it also provides complementary technical services and design support. In addition to digital CMOS process technology, Tower offers advanced non-volatile memory solutions, mixed-signal, RF-CMOS and CMOS image-sensor technologies. To provide world-class customer service, the company maintains two manufacturing facilities: Fab 1 has process technologies from 1.0 to 0.35-micron and can produce up to 16,000 150mm wafers per month. Fab 2 features 0.18-micron and below standard and specialized process technologies, and has the current capacity of up to 15,000 200mm wafers per month. Tower's Web site is located at www.towersemi.com.

SAFE HARBOR

This press release includes forward-looking statements, which are subject to risks and uncertainties. Actual results may vary from those projected or implied by such forward-looking statements. A complete discussion of risks and uncertainties that may affect the accuracy of forward-looking statements included in this press release or which may otherwise affect our business is included under the heading "Risk Factors" in our most recent Annual Report on Form 20-F, Forms F-1, F-3 and 6-K, as were filed with the Securities and Exchange Commission and the Israel Securities Authority. We do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

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