

Ternium S.A.  
Form 6-K  
February 15, 2011

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549**

**FORM 6-K  
REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13A - 16 OR 15D - 16 OF  
THE SECURITIES EXCHANGE ACT OF 1934**

**February 15, 2011**

**Commission File No. 001-32734**

**Ternium S.A.**

(Translation of Registrant's name into English)

**Ternium S.A.**

**46a, Avenue John F. Kennedy**

**L-1855 Luxembourg**

(Address of principal executive offices)

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

Form 20-F  Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by

Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by

Regulation S-T Rule 101(b)(7):

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

If Yes is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b):

**Not applicable**

This report on Form 6-K is deemed to be filed and incorporated by reference in the Registration Statement on Form F-3 (No. 333-171964) of Ternium S.A, and to be part thereof, to the extent not superseded by documents or reports subsequently filed or furnished.

SIGNATURE

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.

TERNIUM S.A.

By: /s/ Pablo Brizzio

By: /s/ Raul Darderes

Name: Pablo Brizzio

Name: Raul Darderes

Title: Attorney-in-Fact

Title: Attorney-in-Fact

Dated: February 15, 2011

Exhibit

Exhibit 1.1 Underwriting Agreement between Ternium S.A., Usinas Siderurgicas de Minas Gerais S.A. Usiminas, and J.P. Morgan Securities LLC dated February 9, 2011.