



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

Mail Stop 4631

April 28, 2010

Mr. Duncan J. Palmer
Chief Financial Officer
Owens Corning
One Owens Corning Parkway
Toledo, OH 43659

**RE: Form 10-K for the year ended December 31, 2009
Form 10-Q for the period ended March 31, 2010
Form 8-K filed on February 17, 2010
Schedule 14A filed on March 17, 2010
File No. 1-33100**

Dear Mr. Palmer:

We have reviewed these filings and have the following comments. If you disagree with a comment, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2009

General

1. We note that you incorporate the credit agreement filed as exhibit 10.1 from a Form 8-K filed on November 2, 2006. However, it does not appear that you have filed on EDGAR the exhibits and schedules to the credit agreement. Please amend the Form 8-K to file a complete copy of the credit agreement, including all exhibits and schedules.

Item 6 – Selected Financial Data, page 21

2. We note that you have presented operating cash flows from continuing operations within your Selected Financial Data. While presentation of cash flows from operating activities is useful, this data should be considered in the framework of a statement of cash flows which reflects management's decision as to the use of these cash flows and the external sources of capital used. The implication of a presentation which shows only the cash flows generated from operations portion of a cash flows statement is that the use of such cash flows is entirely at the discretion of management. Please also present your cash flows from investing and financing activities. See FRC 202.3 and revise your disclosures accordingly in future filings.

Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations, page 23

Executive Overview, page 23

3. We remind you that Item 10(e)(1)(i)(a) of Regulation S-K indicates that you should not present non-GAAP financial measures with greater prominence than the most directly comparable GAAP financial measures. In this regard, your executive overview appears to place more prominence on Adjusted EBIT given that you discuss this non-GAAP financial measure without providing a discussion of the corresponding GAAP financial measure. Please revise as necessary in future filings. Please show us in your supplemental response what the revisions will look like.

Contractual Obligations, page 36

4. You disclose that interest on fixed rate debt has not been adjusted for the impact of interest rate swaps. Please revise your table of contractual obligations in future filings to include the payments you are obligated to make under your interest rate swap agreements. Because the table is aimed at increasing transparency of cash flow, we believe these payments should be included in the table. Please also disclose any assumptions used to derive estimated payments under interest rate swaps.

Critical Accounting Estimates

Impairment of Assets, page 38

5. To the extent that any of your reporting units have estimated fair values that are not substantially in excess of the carrying value and to the extent that goodwill for these reporting units, in the aggregate or individually, if impaired, could materially impact your operating results, please provide the following disclosures in future filings for each of these reporting units:
- Identify the reporting unit;
 - The percentage by which fair value exceeds the carrying value as of the most-recent step-one test;
 - The amount of goodwill;
 - A description of the assumptions that drive the estimated fair value;
 - A discussion of the uncertainty associated with the key assumptions. For example, to the extent that you have included assumptions in your discounted cash flow model that materially deviates from your historical results, please include a discussion of these assumptions; and
 - A discussion of any potential events and/or circumstances that could have a negative effect to the estimated fair value.

If you have determined that the estimated fair value substantially exceeds the carrying value for all of your reporting units, please disclose this determination. Please also provide the above disclosures, as applicable, for any long-lived assets or asset groups for which you have determined that undiscounted cash flows are not substantially in excess of the carrying value and to the extent that the asset amounts, in the aggregate or individually, could materially impact your operating results or total equity. Please refer to Item 303 of Regulation S-K and Sections 216 and 501.14 of the SEC's Codification of Financial Reporting Policies for guidance. Please show us in your supplemental response what the revisions will look like.

Item 15 – Exhibits and Financial Statement Schedules, page 47

Note 1 - Business and Summary of Significant Accounting Policies, page 57

General

6. You recorded gains on sales of certain precious metals used in production tooling in 2009 and 2008. Please disclose in future filings how you account for these precious metals, including which balance sheet line item includes these amounts. Please tell us and also consider disclosing the amount of precious metals recorded as of each balance sheet date. Please show us in your supplemental response what the revisions will look like.

Note 15 – Cost Reduction Actions, page 76

7. You took actions in 2009 to curtail production and reduce operating costs and you disclose that payments related to these activities will continue into 2010. Please enhance your disclosure in future filings to disclose the total amount of restructuring charges expected to be incurred for each major type of cost as well as for each reportable segment as required by FASB ASC 420-10-50-1. Please show us in your supplemental response what the revisions will look like.

Note 19 – Contingent Liabilities and Other Matters, page 87

8. You disclose that certain individuals were named as defendants in a lawsuit and they would have a contingent indemnification claim against the Predecessor. As such, please disclose in future filings the amount of the accrual related to this matter, if any, that you have recorded. Disclose the range of loss in excess of amounts accrued or state that such an estimate cannot be made. See FASB ASC 450-20-50-1 and 450-20-50-4. Please show us in your supplemental response what the revisions will look like.

Note 23 – Earnings (Loss) Per Share, page 93

9. You disclose that you repurchased approximately 4.7 million shares of common stock during the year ended December 31, 2008 but did not repurchase any common stock during the year ended December 31, 2009. Based on your statement of stockholders' equity, statement of cash flows, and disclosure on page 20, it appears that there were some repurchases of common stock during the year ended December 31, 2009. Please advise or revise in future filings.

FORM 10-Q FOR THE PERIOD ENDED MARCH 31, 2010

10. Please address the above comments in your interim filings as well, as applicable.

FORM 8-K FILED ON FEBRUARY 17, 2010

Exhibit 99.1

Table 10 - Free Cash Flow and Net Debt

11. Please disclose in future filings why you believe that presentation of free cash flow provides useful information to investors as well as any additional purposes for which you use this non-GAAP financial measure. Refer to Instruction 2 to Item 2.02 of the Form 8-K and Item 10(e)(1)(i) of Regulation S-K. Please also

ensure that you discuss all material limitations of your measurement of free cash flow. For example, there are some non-discretionary expenditures that do not appear to have been included in your determination of free cash flow. Refer to Compliance and Disclosures Interpretation 102.07 which is available on our website at <http://www.sec.gov/divisions/corpfin/guidance/nongaapinterp.htm>. Please show us in your supplemental response what the revisions will look like.

DEFINITIVE PROXY STATEMENT ON SCHEDULE 14A
FILED ON MARCH 17, 2010

Information Concerning Directors, page 4

12. In future filings, please revise the descriptions of your directors' business experience to ensure that you provide complete disclosure about each director's business experience for the most recent five years. To the extent that a director is self-employed or retired, please disclose. In this regard, we note the descriptions regarding Messrs. Hake and Blake and Ms. Reynolds. Refer to Item 401(e) of Regulation S-K.

Executive Compensation, page 23

Our Compensation is Performance-Based, page 24

13. In future filings, please revise to disclose for each element of compensation and for total compensation the targeted structure for each named executive officer and disclose how actual payouts compared to the targeted structure. Please show us in your supplemental response what the revisions will look like.

Annual Incentives, page 26

14. In future filings, please provide a materially complete description of the correlation between performance under the CIP and the payouts actually made to each of your named executive officers. Please understand that discussion of the various items of corporate and individual performance that were considered by the compensation committee must be accompanied by a complete qualitative and quantitative discussion of how the committee determined to award the specific amount for each named executive officer. Please also comply with this comment with respect to awards under the LTIP. Please show us in your supplemental response what the revisions will look like

Stock Ownership Guidelines, page 29

15. In future filings, please disclose whether your officers and directors are in compliance with your stock ownership guidelines.

Risk Assessment, page 29

16. We note your disclosure in response to Item 402(s) of Regulation S-K. Please describe the process you undertook to reach the conclusion that disclosure is not necessary.

* * * *

Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your supplemental response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in their filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Mr. Duncan J. Palmer
Owens Corning
April 28, 2010
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You may contact Dorine Miller, Financial Analyst, at (202) 551-3711 or, in her absence, Andrew Schoeffler, Staff Attorney, at (202) 551-3748 if you have any questions regarding legal or disclosure matters. Please contact Jeffrey Gordon, Staff Accountant, at (202) 551-3866 or, in his absence, Nudrat Salik, Staff Accountant, at (202) 551-3692 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Rufus Decker
Accounting Branch Chief