# Owens Corning
# Supplier
# EDI Implementation Guide


**Updated 3/28/2007**


*Version 4010*

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<span style="color:red">**CHANGES TO THE 03/28/2007 UPDATE ARE HIGHLIGHTED IN RED!**</span>

## I. Introduction

Owens Corning (abbreviated OC) is committed to delivering the highest trading partner satisfaction possible. We are in the process of enhancing our Electronic Commerce Services to provide a more significant focus on our supplier trading partner relationships. We are adapting to current market demands by developing, with our supplier base, more capable and responsive business processes, while adding value to our supplier partner relationship.

## II. Partnership Objectives

Focused on building stronger, more effective business partnerships through the use of advanced information technology, Owens Corning will focus on the growth of our Electronic Commerce Services with our supplier base. This will occur through increased use of our Standard Services.

- Standard Services - means for the electronic exchange of basic business documents via Electronic Data Interchange (EDI).

    - Documents:  Purchase Orders, Purchase Order Change Request, Invoices, Advance Ship Notices, Functional Acknowledgments, Text Messages and P.O. Acknowledgments

These services will enable programs with our suppliers such as Evaluated Receipt Settlement, eliminating the standard paper invoice, and use of an electronic advance ship notice.

The standard services will enable Owens Corning and our supplier partnerships to become more efficient and cost effective in a competitive marketplace.

Benefits:  Electronic Commerce Services - added value through:

- minimized transaction costs
- increased accuracy
- increased transaction speed
- increased efficiency and productivity
- increased trading partner satisfaction.

## III. Electronic Trade Specifications
The following charts lists the EDI documents Owens Corning exchanges with our trading partners.

|  | S=Send / R=Receive | |  |
| --- | --- | --- | --- |
| Document Name | Current | Future | |

*Customer/Supplier*

| Document Name | Current | | Future | |
| --- | --- | --- | --- | --- |
| 810 - Invoice........................................ | S | R | | |
| 820 - Remittance Advice ...................... | S | R | | |
| 821 - Financial Information Reporting… | | R | | |
| 823 - Lockbox………………………… | | R | | |
| 824 - Application Advice……………….. | | R | | |
| 830 - Planning Schedule...................... | | R | | |
| 832 - Price/Sales Catalog .................... | S | | | R |
| 840 - Request for Quote ...................... | | | S | |
| 843 - Response to Quote...................... | | | | R |
| 850 - Purchase Order........................... | S | R | | |
| 852 - Product Activity Data................... | | R | | |
| 855 - P.O. Acknowledgment................. | S | R | | |
| 856 - Advance Ship Notice................... | S | R | | |
| 860 - Purchase Order Change.............. | S | R | | |
| 861 - Receiving Advice......................... | | R | | |
| 862 - Shipping Schedule...................... | | R | | |
| 864 - Text............................................. | S | R | | |
| 865 - Change P.O. Acknowledgment.... | | R | S | |
| 879 - Price Change.............................. | | | S | R |
| 997 - Functional Acknowledgment........ | S | R | | |

*Motor Carrier*

| Document Name | Current | |
| --- | --- | --- |
| 204 - Shipment Info (Load Tender)........ | S | |
| 210 - Freight Details and Invoice........... | | R |
| 214 - Shipment Status Message............ | | R |
| 990 - Response to a Load Tender.......... | | R |

*Rail Carrier*

| Document Name | Current |
| --- | --- |
| 410 - Freight Details and Invoice............ | R |

Our current 850, 855, 860, 865, 856, 864 and 997 documents for our suppliers are X12 Standard Version 4010. We use the following control characters:

| Character Name | Character | ASCII Hex |
| --- | --- | --- |
| Element Separator | * | 2A |
| Sub-element Separator | < | 3C |
| Segment Terminator | ~ | 7E |

**III. Electronic Trade Specifications cont.**

Network Providers

We utilize Sterling COMMERCE:NETWORK (Ordernet).  A trading partner can utilize any other third party network, provided it has an interconnect with Sterling.

The following are the ID's to trade with Owens Corning:

Sterling Users and Interconnects
- Test Mailbox ID's
  - ISA - 001317452TS, qualifier of 01
    GS - 001317452TS

- Production Mailbox ID's
  - ISA - 001317452, qualifier of 01
    GS - 001317452


We pull from our mailbox on the hour from 8AM though 6PM.  Connection times will be scheduled with trading partners during implementations.

**IV. Checklist For Starting An EDI Effort**

If you are new to EDI, the following list summarizes steps that are necessary to become active in EDI.

1.  Obtain management commitment and ownership.

2.  Obtain EDI education by attending conferences, reading educational materials, and contacting companies that are already active in EDI.

3.  Determine your hardware and software requirements, allowing for future expansion in EDI.

4.  Select a VAN (Value Added Network)...also known as 'Network Provider'.

5.  Identify resources to coordinate EDI at all levels: technical, accounting, marketing, etc.

6.  Analyze your business documents to determine which would be the best to trade electronically.

7.  Choose a trading partner who currently has a successful EDI program as your first trading partner.

8.  An alternative, which minimizes your investment when beginning your EDI efforts, is to select "In-Network Translation". With "In-Network Translation" you transmit your application file to your 'Network Provider' and they translate into EDI format for you. In turn, they translate your trading partner's return documents from EDI format into your file specifications and forward to you. Contact your selected 'Network Provider' for more information on this alternative.

9.  When selecting a 'Network Provider', be sure to ask if they provide "In-Network Translation" if there is a possibility you would want to use that service.

## V. **Contacts**

DEVELOPING AN ELECTRONIC COMMERCE PLAN / POST IMPLEMENTATION / PRODUCTION ENVIRONMENT

If you would like to discuss the details of implementing EDI or an Electronic Commerce Service with Owens Corning, the EC specialist will be glad to answer your questions and assist you.  Please contact our Vendor EDI Hotline.

Once a document has been tested, implemented, and is in a production state, all questions and/or problems are handled by our Vendor EDI Hotline.

You may contact our Vendor EDI Hotline one of three ways listed below:

Phone: 419-248-6296

Email:  vendoredisupport@owenscorning.com

Fax:  419-325-1296

## VI. Purchase Order Layout Form 850

Outlined below is information provided to help clarify some specific elements as they pertain to Owens Corning.

**Order of Segments** - **It is important that all segments be sent in the order that they are listed in this document.**

Purchase Order Type Code (BEG02) - 2 characters. The valid values for this data element are:
'NE' = New Order    'CN' = Consignment Order    'SS' = Service Order    **'BE' = Blanket Purchase Order**

Purchase Order Number (BEG03) - 10 digits. The purchase order number always begins with 45 followed by the remaining 8 digits. Example: **4501035306**

Request Reference Number (BEG06) – 16 digits. This will contain the document identification number for the Purchase order. Example: **0000000010182838**

Vendor Name (N102) - The name of the Owens Corning vendor.

Vendor Number (REF02) – 10 digits. The vendor number is assigned by Owens Corning and is filled with leading zeros. Example: **0000654321**

Plant Identification (N104 and N406) - 4-digits. A list of Owens Corning plant names and corresponding plant codes will be provided upon request. Example: **1067**

Product/Service ID (PO107) - 18 digits. This contains the Owens Corning product/material code. The Owens Corning product/material code is filled with leading zeros. Example: **000000000000028508**

Manufacture's Material Code / Name (PO109 and PO111) - We are now including the manufacture's material code and the manufacturer's name on the PO1 segment, when included in the SAP product/material code setup.

Class and Characteristic Data (PID) - This additional product data will be included with the standard product description, when it exists in the SAP application. It is needed to better define the product/material being ordered.

Special Packaging Code (PO404) - We require some supplies to recognize special packaging conditions on certain line items. Only those suppliers providing these products will receive the PO4 segment. Please contact your buyer if you have any questions regarding the use of the packaging code (PO4 segment) in the purchase order.

Date Information (DTM) - The requested delivery date will be sent to all suppliers. We require some suppliers to use our ship date to meet delivery requirements. For this reason, only these suppliers will receive the ship date in their purchase order. Please contact your buyer if you have any questions regarding the use of the ship date in the purchase order.

Carrier Details (TD5) – This segment is only provided when transportation mode is requested by the vendor, and depending upon the shipment type and availability. When included, this field provides the carrier SCAC code and transport method. Added TD512 'G2' Standard Service qualifier, to be sent only when TD509-11 present.

The formula used to calculate the line item price is as follows:
Price calculation =
ROUND(ROUND([Order Qty] * ( [Numerator] / [Denominator]),3) * ([Net Price] / [Price Factor]), 2)

Where Order Qty is found in the PO102 data element,
       Numerator is found in the MEA03 when MEA02 = 'MU',
       Denominator is found in the MEA03 when MEA02 = 'ZZZ',
       Net Price is found in the P0104 data element,
       Price Factor is found in the CTP10 data element when CTP02 = 'NET'.

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **ISA** | | **Interchange Control Header** | | |
| | *ISA01* | Authorization Information Qualifier | 2/2 | '00' |
| | *ISA02* | Authorization Information | 10/10 | Blank |
| | *ISA03* | Security Information Qualifier | 2/2 | '00' |
| | *ISA04* | Security Information | 10/10 | Blank |
| | *ISA05* | Interchange ID qualifier | 2/2 | '01' |
| | *ISA06* | Interchange Sender ID | 15/15 | '001317452' (production) '001317452TS' (test) |
| | *ISA07* | Interchange ID qualifier | 2/2 | Assigned by partner |
| | *ISA08* | Interchange Receiver ID | 15/15 | Assigned by partner |
| | *ISA09* | Interchange date | 6/6 | Format YYMMDD |
| | *ISA10* | Interchange time | 4/4 | Format HHMM |
| | *ISA11* | Interchange ctl standards ID | 1/1 | 'U' |
| | *ISA12* | Interchange version ID | 5/5 | '00400' |
| | *ISA13* | Interchange Control Numbers | 9/9 | Unique sequential number to identify transmissions to trading partner |
| | *ISA14* | Acknowledgment requested | 1/1 | '0'= No ack |
| | *ISA15* | Test indicator | 1/1 | 'T' = Test data 'P' = Prod Data |
| | *ISA16* | Sub-element separator | 1/1 | '>' |

Example ISA:

ISA*00*     *00*       *01*001317452      *99*999999999      *960911*1136*U*00400*000000243*0*P*>~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **GS** | | **Functional Group Header** | | |
| | *GS01* | Functional ID | 2/2 | 'PO' |
| | *GS02* | Application Sender ID | 2/15 | '001317452' (production) '001317452TS' (test) |
| | *GS03* | Application Receiver ID | 2/15 | Assigned by partner |
| | *GS04* | Data Interchange date | 8/8 | Format CCYYMMDD |
| | *GS05* | Data Interchange time | 4/8 | Format HHMM |
| | *GS06* | Data Interchange control # | 1/9 | Number assigned to the transmission |
| | *GS07* | Responsible Agency Code | 1/2 | 'X' = ANSI X12 |
| | *GS08* | Version/Release | 1/12 | '004010' |

Example GS: GS*PO*001317452*999999999*20000911*1136*243*X*004010~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **ST** | | **Transaction Set Header** | | |
| | *ST01* | Transaction Set ID | 3/3 | '850' |
| | *ST02* | Transaction Set Control Number | 4/9 | Assigned sequential number for transaction sets. |

Example ST:  ST*850*000000001~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **BEG** | | **Beginning Segment for Purchase Order** | | |
| | *BEG01* | Transaction Set Purpose Code | 2/2 | '00' – Original. |
| | *BEG02* | Purchase Order Type | 2/2 | Valid values: 'NE' = New Order 'CN' = Consignment Order 'SS' = Service Order **'BE' = Blanket Purchase Order** |
| | *BEG03* | Purchase Order Number | 1/22 | Purchase Order Number |
| | *BEG05* | Purchase Order Date | 8/8 | Format CCYYMMDD |
| | *BEG06* | Contract Number | 1/30 | Document ID number |

Example BEG:  BEG*00*NE*4500035306**20000911*0000000010182838~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **CUR** | | **Currency** | | |
| | *CUR01* | Entity Identifier Code | 2/3 | 'BY' = Buying Party |
| | *CUR02* | Currency Code | 3/3 | |

Example CUR:  CUR*BY*USD~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **REF** | | **Reference Numbers** | | |
| | *REF01* | Reference Number Qualifier | 2/3 | 'VR' = Vendor ID Number |
| | *REF02* | Reference Number | 1/30 | Vendor number assigned by Owens Corning. |

Example REF:  REF*VR*0000654321~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **PER** | | **Administrative Communications Contact** | | |
| | *PER01* | Contact Function Code | 2/2 | 'BD' = Buyer Name |
| | *PER02* | Name | 1/60 | |
| | *PER03* | Communication Number Qualifier | 2/2 | 'TE' = Telephone |
| | *PER04* | Communication Number | 1/80 | |

Example PER:  PER*BD*John P. Smith*TE*800-555-1212~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **ITD** | | **Terms of Sale** | | |
| | *ITD01* | Terms Type Code | 2/2 | '01' = Basic |
| | *ITD02* | Terms Basis Date Code | 1/2 | '1' = Ship Date |
| | *ITD03* | Terms Discount Percent | 1/6 | |
| | *ITD05* | Terms Discount Days Due | 1/3 | |
| | *ITD07* | Term Net Days | 1/3 | |
| | *ITD12* | Description | 1/80 | |

Example ITD: ITD*01*1*2**10**45*****Description Text~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **N9** | | **Reference Numbers** | | |
| | *N901* | Reference Identification Qualifier | 2/3 | 'PO' – Purchase Order Number |
| | *N902* | Reference Identification | 1/30 | Purchase Order Number |

Example N9: N9*PO*4500364981~


| | | | | |
|-----|---------|-------------|---------|-----------------|
| **MSG** | | **Message Text** | | |
| | *MSG01* | Free Form Message Text | 1/264 | Text |

Example MSG: MSG*Please call 999-888-1111 to confirm pricing on this order~


*Name Loop Starts Here*

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N1** | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'VN' = Vendor |
| | *N102* | Name | 1/60 | Vendor name. |

Example N1: N1*VN*Supplier XYZ~

*Name Loop Ends Here*


*Name Loop Starts Here*

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N1** | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'ST' = Ship To |
| | *N102* | Name | 1/60 | |
| | *N103* | ID Code Qualifier | 1/2 | '92' Assigned by buyer |
| | *N104* | Identification Code | 2/80 | OC Plant Code |

Example N1: N1*ST*Panther Plant*92*1215~


| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N3** | | **Address Information** | | |
| | *N301* | Address Information | 1/55 | |

Example N3: N3*One Owens Corning Parkway~


| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N4** | | **Geographic Location** | | |
| | *N401* | City Name | 2/30 | City |
| | *N402* | State Code | 2/2 | State |
| | *N403* | Postal Code | 3/15 | Zip Code |
| | *N405* | Location Qualifier | 1/2 | 'PL' = Plant |
| | *N406* | Location Identification | 1/30 | OC Plant Code |

Example N4: N4*Newark*OH*456991234**PL*1215~

*Name Loop Ends Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|

*Name Loop Starts Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **N1** | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'BT' = Bill To |
| | *N102* | Name | 1/60 | |

Example N1:  N1*BT*Owens Corning~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **N3** | | **Address Information** | | |
| | *N301* | Address Information | 1/55 | |

Example N3:  N3*One Owens Corning Billway~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **N4** | | **Geographic Location** | | |
| | *N401* | City Name | 2/30 | City |
| | *N402* | State Code | 2/2 | State |
| | *N403* | Postal Code | 3/15 | Zip Code |

Example N4:  N4*Charleston*WV*25334~

*Name Loop Ends*

*Name Loop Starts Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **N1** | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'SF' = Ship From |
| | *N102* | Name | 1/60 | |
| | *N103* | ID Code Qualifier | 1/2 | '92' Assigned by buyer |
| | *N104* | Identification Code | 2/80 | Vendor Number |

Example N1:  N1*SF*Ship From Name*92*123456~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **N3** | | **Address Information** | | |
| | *N301* | Address Information | 1/55 | |
| | *N301* | Address Information | 1/55 | |

Example N3:  N3*Street Address*PO Box 123~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **N4** | | **Geographic Location** | | |
| | *N401* | City Name | 2/30 | City |
| | *N402* | State Code | 2/2 | State |
| | *N403* | Postal Code | 3/15 | Zip Code |

Example N4:  N4*Charleston*WV*25334~

*Name Loop Ends*

*Line Item Loop Starts Here*

**PO1**          **Purchase Order Baseline Item Data**

| | | | | |
|---|---|---|---|---|
| PO101 | Assigned Identification | 1/20 | Format 999 | |
| PO102 | Quantity Ordered | 1/15 | Format 999 | |
| PO103 | Unit of Measure Code | 2/2 | UOM (ex. EA) | |
| PO104 | Unit Price | 1/17 | Format 999 | |
| PO106 | Product/Service ID Qualifier | 2/2 | 'BP' = Buyer's Part Number | |
| PO107 | Product/Service ID | 1/48 | OC's Material Code | |
| PO108 | Product/Service ID Qualifier | 2/2 | 'MG' = Manufacturer's Part Number | |
| PO109 | Product/Service ID | 1/48 | Manufacturer's Material Code | |
| PO110 | Product/Service ID Qualifier | 2/2 | 'MF' = Manufacturer Name | |
| PO111 | Product/Service ID | 1/48 | Manufacturer's Name | |

Example PO1: PO1*00010*95*EA*0.60**BP*000000000000028508*MG*9999999*MF*Whirlpool~

**LIN**          **Item Identification**

| | | | |
|---|---|---|---|
| LIN01 | Assigned Identification | 1/20 | Format 999 |
| LIN02 | Product/Service ID Qualifier | 2/2 | XA (Preferred Part No.) |
| LIN03 | Product/Service ID | 1/48 | Manufacturer's Part No. |

Example LIN: LIN*00010*XA*ARCNUMBER1234~

**CTP**          **Pricing Information**

| | | | |
|---|---|---|---|
| CTP02 | Price Identifier Code | 3/3 | 'NET' = Net Item Price |
| CTP03 | Unit Price | 1/17 | Line Item Net Price |
| CTP04 | Quantity | 1/15 | Line Item Quantity |
| CTP05 | Unit of Measure Code | 2/2 | Price UOM code |
| CTP10 | Condition Value | 1/10 | Price multiplier factor |

Example CTP: CTP**NET*1232.50*92*EA*****1~

**MEA**          **Measurements**

| | | | |
|---|---|---|---|
| MEA02 | Measurement Qualifier | 1/3 | 'MU' = Multiplier. |
| MEA03 | Measurement Value | 1/20 | Price Calculation Numerator value |

Example MEA: MEA**MU*1~

**MEA**          **Measurements**

| | | | |
|---|---|---|---|
| MEA02 | Measurement Qualifier | 1/3 | 'ZZZ' = Mutually Defined. |
| MEA03 | Measurement Value | 1/20 | Price Calculation Divisor value |

Example MEA: MEA**ZZZ*35~

**PID**          **Product Item Description**

| | | | |
|---|---|---|---|
| PID01 | Item Description Type | 1/1 | 'F' = Free Form |
| PID05 | Description | 1/80 | |

Example PID: PID*F**** Clutch~
                  PID*F**** ADJ NUT, MORSE~

PID*F**** TL700A

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| PO4 | | **Item Physical Details** | | |
| | *PO404* | Packaging Code | 3/5 | 'BAG' Bag Packaging |

Example PO4:  PO4****BAG~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| TAX | | **Tax Reference** | | |
| | *TAX02* | Location ID Qualifier | 1/2 | 'SP' State/Province |
| | *TAX03* | Location ID | 1/30 | State Code |
| | *TAX12* | Tax Exempt Code | 1/1 | '1' = Yes (Tax Exempt) |
| | | | | '2' = No (Not Tax Exempt) |

Example TAX:  TAX**SP*Ohio*********1~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| FOB | | **F.O.B. Related Instructions** | | |
| | *FOB01* | Shipment Method of Payment | 2/2 | Valid values are: |
| | | | | 'CC' = Collect |
| | | | | 'PC' = Prepaid but charged to customer |
| | | | | 'PP' = Prepaid by seller |
| | *FOB02* | Location Qualifier | 1/2 | 'ZZ' = Mutually Defined |
| | *FOB03* | Description | 1/80 | |

Example FOB:  FOB*PP*ZZ*Destination~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| DTM | | **Date/Time Reference** | | |
| | *DTM01* | Date/Time Qualifier | 3/3 | '002' = Delivery Requested |
| | | | | '011' = Ship Date |
| | *DTM02* | Date | 8/8 | Format CCYYMMDD |

Example DTM:   DTM*002*20000911~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| TD5 | | **Carrier Details** | | |
| | *TD501* | Routing Sequence Code | 1/2 | 'O' = Origin Carrier |
| | *TD502* | ID Code Qualifier | 1/2 | '2' = SCAC |
| | *TD503* | ID Code | 2/80 | |
| | *TD504* | Transportation Method/Type Code | 1/2 | |
| | *TD509* | Transit Direction Code | 2/2 | 'BS' = Buyer to Seller |
| | *TD510* | Transit Time Direction Qual | 2/2 | 'CD' = Calendar Days |
| | *TD511* | Transit Time | 1/4 | |
| | *TD512* | Service Level Code | 2/2 | 'G2' = Standard Service |

Example TD5:  TD5*O*2*BNSF*R*****BS*CD*7*G2

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| MSG | | **Message Text** | | |
| | *MSG01* | Free Form Message Text | 1/264 | Text |

Example MSG:  MSG*Please call 999-888-1111 to confirm pricing on this order~

***Line Item Loop Ends Here***

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| CTT | | **Transaction Totals** | | |
| | *CTT01* | Number of Line Items | 1/6 | Format 999 |
| | *CTT02* | Hash Total | 1/10 | Total Qty Ordered (Format 999) |

Example CTT:  CTT*17*365~


| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| SE | | **Transaction Set Trailer** | | |
| | *SE01* | Number of included segments | 1/6 | Total segments, including the ST and SE segments. |
| | *SE02* | Transaction Set Control # | 4/9 | Same number as ST02 |

Example SE:  SE*42*000000001~


| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| GE | | **Functional Group Trailer** | | |
| | *GE01* | Number of Transaction Sets included | 1/6 | Total number of transaction sets in the functional group |
| | *GE02* | Data Interchange Control # | 1/9 | Same number as GS06 |

Example GE:  GE*1*243~


| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| IEA | | **Interchange Control Trailer** | | |
| | *IEA01* | Number of Functional Groups | 1/5 | Total number of groups in the interchange |
| | *IEA02* | Interchange Control # | 9/9 | Same number as ISA13 |

Example IEA:  IEA*1*000000243~

**VII. Purchase Order Acknowledgement Layout Form 855**

Outlined below are the requirements for order acknowledgment certification and processing.

**Order of Segments** - **It is important that all segments be sent in the order that they are listed in this document.**

ACKNOWLEDGEMENTS are required at the LINE ITEM LEVEL.

PO Baseline Item Data (PO1) – Changes to line item data are to be captured in this segment.

- PO101 – Line item number sent on the purchase order. The leading zeros are not required. **The trailing zeros are required.**
- PO103 – UOM sent on the purchase order. If conversions were required for input into your system, they must be converted back to Owens Corning units when returned on the order acknowledgement.
- PO107 – Material code sent on the purchase order. The leading zeros are not required. **The trailing zeros are required.**

**NOTE: When the 850 PO line item is for a unit price of 10 EA, 100 EA, or 1000 EA; i.e., for example:**

     **PO1*00010*12000*EA*22.86**BP*000000000000394193*MG*TAO1FABA1AA05000J*MF*VICKERS CTP**NET*27432*12000*EA*****10**

**And, since there is no provision in the 855 to indicate that it is for a unit price of 10/100/1000 EA, then the 855-PO line item must mirror the 850 line item as per our example:**

     **PO1*00010*12000*EA*22.86**BP*394193.**

Do not change the quantity to 1200 for a unit price of $22.86 per 10, or change the unit price to 2.286 per one unit, it will not process correctly in Owens Corning's system.

Allowance, Charge or Service Information (SAC segment) – If freight charges are included on the invoice and were not sent as a line item on the purchase order, you must include these charges in the SAC segment.

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **ISA** | | **Interchange Control Header** | | |
| | *ISA01* | Authorization inf. Qualifier | 2/2 | '00' |
| | *ISA02* | Authorization information | 10/10 | Blank |
| | *ISA03* | Security inf. Qualifier | 2/2 | '00' |
| | *ISA04* | Security information | 10/10 | Blank |
| | *ISA05* | Interchange ID qualifier | 2/2 | Assigned by partner |
| | *ISA06* | Interchange Sender ID | 15/15 | Assigned by partner |
| | *ISA07* | Interchange ID qualifier | 2/2 | '01' |
| | *ISA08* | Interchange Receiver ID | 15/15 | 001317452 (production) 001317452TS (test) |
| | *ISA09* | Interchange date | 6/6 | Format YYMMDD |
| | *ISA10* | Interchange time | 4/4 | Format HHMM |
| | *ISA11* | Interchange ctl standards ID | 1/1 | 'U' |
| | *ISA12* | Interchange version ID | 5/5 | '00400' |
| | *ISA13* | Interchange Control Numbers | 9/9 | Unique sequential number to identify transmissions to trading partner |
| | *ISA14* | Acknowledgment requested | 1/1 | '0'= No ack |
| | *ISA15* | Test indicator | 1/1 | 'T' = Test data 'P' = Prod data |
| | *ISA16* | Sub-element separator | 1/1 | '>' |

Example ISA:

ISA*00*    *00*      *99*999999999    *01*001317452    *000911*1136*U*00400*000000243*0*P*>~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **GS** | | **Functional Group Header** | | |
| | *GS01* | Functional ID | 2/2 | 'PR' |
| | *GS02* | Application Sender ID | 2/15 | Assigned by partner |
| | *GS03* | Application Receiver ID | 2/15 | 001317452 (production) 001317452TS (test) |
| | *GS04* | Data Interchange date | 8/8 | Format CCYYMMDD |
| | *GS05* | Data Interchange time | 4/8 | Format HHMM |
| | *GS06* | Data Interchange control # | 1/9 | Number assigned to the transmission |
| | *GS07* | Responsible Agency Code | 1/2 | 'X' = ANSI X12 |
| | *GS08* | Version/Release | 1/12 | '004010' |

Example GS: GS*PR*999999999*001317452*20000911*1136*243*X*004010~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **ST** | | **Transaction Set Header** | | |
| | *ST01* | Transaction Set ID | 3/3 | '855' |
| | *ST02* | Transaction Set Control Number | 4/9 | Assigned sequential number for transaction sets. |

Example ST:  ST*855*000000001~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **BAK** | | **Beginning Segment for Purchase Order Acknowledgment** | | |
| | *BAK01* | Transaction Set Purpose Code | 2/2 | '00' - Original |
| | *BAK02* | Acknowledgment Type | 2/2 | |
| | *BAK03* | Purchase Order Number | 1/22 | Purchase Order Number |
| | *BAK04* | Purchase Order Date | 8/8 | Format CCYYMMDD |

Example BAK:  BAK*00*AC*4500035306*20000911~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **SAC** | | **Allowance, Charge, or Service** | | |
| | *SAC01* | Allowance/Charge ID | 1/1 | 'C' – Charge |
| | *SAC02* | Charge Code | 1/10 | |
| | *SAC05* | Charge Total Amount | 1/9 | Format 999 <br> * USE IMPLIED DECIMAL |

Example SAC:  SAC*C*D240***17566~

*Line Item Loop Starts Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **PO1** | | **Purchase Order Baseline Item Data** | | |
| | *PO101* | Assigned Identification | 1/20 | Format 999 |
| | *PO102* | Quantity Ordered | 1/15 | Format 999 |
| | *PO103* | Unit of Measure | 2/2 | |
| | *PO104* | Unit Price | 1/17 | Format 999 |
| | *PO106* | Product/Service ID Qualifier | 2/2 | "BP" = Buyer's Part Number |
| | *PO107* | Product/Service ID | 1/48 | Owens Corning Material Code |

Example PO1:  PO1*00010*95*EA*0.60**BP*000000000000028508~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **PID** | | **Product Item Description** | | |
| | *PID01* | Item Description Type | 1/1 | 'F' = Free Form |
| | *PID05* | Description | 1/80 | |

Example PID:  PID*F**** Clutch~
        PID*F**** ADJ NUT, MORSE~
        PID*F**** TL700A

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **DTM** | | **Date/Time Reference** | | |
| | *DTM01* | Date/Time Qualifier | 3/3 | '002' =Delivery Requested |
| | *DTM02* | Date | 8/8 | Format CCYYMMDD |

Example DTM:   DTM*002*20000911~

*Line Item Loop Ends Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **CTT** | | **Transaction Totals** | | |
| | *CTT01* | Number of Line Items | 1/6 | Format 999 |
| | *CTT02* | Hash Total | 1/10 | Total Qty Ordered (Format 999) |

Example CTT:  CTT*17*365~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **SE** | | **Transaction Set Trailer** | | |
| | *SE01* | Number of included segments | 1/6 | Total segments, including the ST and SE segments. |
| | *SE02* | Transaction Set Control Number | 4/9 | Same number as ST02 |

Example SE:  SE*42*000000001~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **GE** | | **Functional Group Trailer** | | |
| | *GE01* | Number of Transaction Sets included | 1/6 | Total number of transaction sets in functional group |
| | *GE02* | Data Interchange Control Number | 1/9 | Same number as GS06 |

Example GE:  GE*1*243~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **IEA** | | **Interchange Control Trailer** | | |
| | *IEA01* | Number of Functional Groups | 1/5 | Total number of groups in the interchange |
| | *IEA02* | Interchange Control Number | 9/9 | Same number as ISA13 |

Example IEA:  IEA*1*000000243~

**VIII. Purchase Order Change Request Layout Form 860**

Outlined below is information provided to help clarify some specific elements as they pertain to Owens Corning.

**Order of Segments** - **It is important that all segments be sent in the order that they are listed in this document.**

Purchase Order Change or Reason Type Code (BCH01) - The type of change is sent in this field.

Purchase Order Type Code (BCH02) - 2 characters.  The valid values for this data element are:
'NE' = New Order     'CN' = Consignment Order    'SS' = Service Order   **'BE' = Blanket Purchase Order**

Purchase Order Number (BCH03) - 10 digits. The purchase order number will always begin with 45 followed by the remaining 8 digits.  Example:  **4501035306**

Request Reference Number (BCH07)  - 16 digits.  This element contains the document identification number for the change purchase order, assigned by the application.  Example: **0000000010770977**

Vendor Number (REF02) - 10 digits.  The vendor number is filled with leading zeros.  Example:   **0000654321**

Vendor Name (N102) - The name of the Owens Corning vendor.

Plant Identification (N104 and N406) - 4-digit plant code.  A list of Owens Corning plant names and corresponding plant codes will be provided upon request.  Example:  **1067**

Product/Service ID (POC09) - 18 digits.  This contains the Owens Corning product/material code.  The Owens Corning product/material code is filled with leading zeros.   Example:  **000000000000028508**

Manufacture's Material Code / Name (POC11)  - We are now including the manufacture's material code and the manufacturer's name on the POC segment when it is included in the SAP product/material code setup.

Class and Characteristic Data (PID)  - This additional product data will be included along with the standard product description.  It is needed to better define the product being ordered.

Special Packaging Code (PO404)  - We require some supplies to recognize special packaging conditions on certain line items.  Only those suppliers providing these products will receive the PO4 segment.  Please contact your buyer if you have any questions regarding the use of the packaging code (PO4 segment) in the purchase order change document.

Date Information (DTM)  - The requested delivery date will be sent to all suppliers.  We require some suppliers to use our ship date to meet delivery requirements.  For this reason, only these suppliers will receive the ship date in their purchase order change.  Please contact your buyer if you have any questions regarding the use of the ship date in the purchase order change document.

Carrier Details (TD5) – This segment is only provided when transportation mode is requested by the vendor, and depending upon the shipment type and availability.  When included, this field provides the carrier SCAC code and transport method.  Added TD512 'G2' Standard Service qualifier, to be sent only when TD509-11 present.

The formula used to calculate the line item price is as follows:
Price calculation =
ROUND( ROUND([Order Qty] * ( [Numerator] / [Denominator]),3) * ([Net Price] / [Price Factor]), 2)

Where Order Qty is found in the POC03 data element,
       Numerator is found in the MEA03 when MEA02 = 'MU',
       Denominator is found in the MEA03 when MEA02 = 'ZZZ',
       Net Price is found in the POC06 data element,
       Price Factor is found in the CTP10 data element when CTP02 = 'NET'.

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **ISA** | | **Interchange Control Header** | | |
| | *ISA01* | Authorization inf. Qualifier | 2/2 | '00' |
| | *ISA02* | Authorization information | 10/10 | Blank |
| | *ISA03* | Security inf. Qualifier | 2/2 | '00' |
| | *ISA04* | Security information | 10/10 | Blank |
| | *ISA05* | Interchange ID qualifier | 2/2 | '01' |
| | *ISA06* | Interchange Sender ID | 15/15 | '001317452' (production) '001317452TS' (test) |
| | *ISA07* | Interchange ID qualifier | 2/2 | Assigned by partner |
| | *ISA08* | Interchange Receiver ID | 15/15 | Assigned by partner |
| | *ISA09* | Interchange date | 6/6 | Format YYMMDD |
| | *ISA10* | Interchange time | 4/4 | Format HHMM |
| | *ISA11* | Interchange ctl standards ID | 1/1 | 'U' |
| | *ISA12* | Interchange version ID | 5/5 | '00400' |
| | *ISA13* | Interchange Control Numbers | 9/9 | Unique sequential number to identify transmissions to trading partner |
| | *ISA14* | Acknowledgment requested | 1/1 | '0'= No ack |
| | *ISA15* | Test indicator | 1/1 | 'T' = Test data 'P' = Prod data |
| | *ISA16* | Sub-element separator | 1/1 | '>' |

Example ISA:

ISA*00*          *00*          *01*001317452          *99*999999999          *960911*1136*U*00400*000000243*0*P*>~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **GS** | | **Functional Group Header** | | |
| | *GS01* | Functional ID | 2/2 | 'PC' |
| | *GS02* | Application Sender ID | 2/15 | '001317452' (production) '001317452TS' (test) |
| | *GS03* | Application Receiver ID | 2/15 | Assigned by partner |
| | *GS04* | Data Interchange date | 8/8 | Format CCYYMMDD |
| | *GS05* | Data Interchange time | 4/8 | Format HHMM |
| | *GS06* | Data Interchange control # | 1/9 | Number assigned to the transmission |
| | *GS07* | Responsible Agency Code | 1/2 | 'X' = ANSI X12 |
| | *GS08* | Version/Release | 1/12 | '004010' |

Example GS: GS*PC*001317452*999999999*20000911*1136*243*X*004010~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **ST** | | **Transaction Set Header** | | |
| | *ST01* | Transaction Set ID | 3/3 | '860' |
| | *ST02* | Transaction Set Control Number | 4/9 | Assigned sequential number for transaction sets |

Example ST:  ST*860*000000001~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **BCH** | | **Beginning Segment for Purchase Order Change** | | |
| | *BCH01* | Transaction Set Purpose Code | 2/2 | '04' – Change |
| | *BCH02* | Purchase Order Type | 2/2 | Valid values: 'NE' = New Order 'CN' = Consignment Order 'SS' = Service Order **'BE' = Blanket Purchase Order** |
| | *BCH03* | Purchase Order Number | 1/22 | Purchase Order Number |
| | *BCH06* | Purchase Order Date | 8/8 | Format CCYYMMDD |
| | *BCH07* | Request Reference Number | 1/45 | Document ID number |

Example BCH:  BCH*04*NE*4500035306***20000911*0000000010770977~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **CUR** | | **Currency** | | |
| | *CUR01* | Entity Identifier Code | 2/3 | 'BY' = Buying Party |
| | *CUR02* | Currency Code | 3/3 | |

Example CUR:  CUR*BY*USD~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **REF** | | **Reference Numbers** | | |
| | *REF01* | Reference Number Qualifier | 2/3 | 'VR' = Vendor ID Number |
| | *REF02* | Reference Number | 1/30 | Vendor number assigned by Owens Corning. |

Example REF:  REF*VR*0000654321~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **PER** | | **Administrative Communications Contact** | | |
| | *PER01* | Contact Function Code | 2/2 | 'BD' = Buyer Name |
| | *PER02* | Name | 1/60 | |
| | *PER03* | Communication Number Qualifier | 2/2 | 'TE' = Telephone |
| | *PER04* | Communication Number | 1/80 | |

Example PER:  PER*BD*John P. Smith*TE*800-555-1212~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **N9** | | **Reference Numbers** | | |
| | *N901* | Reference Ident. Qualifier | 2/3 | 'PO' = Purchase Order Number |
| | *N902* | Reference Identification | 1/30 | Purchase Order Number |

Example N9:  N9*PO*4500364981~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **MSG** | | **Message Text** | | |
| | *MSG01* | Free Form Message Text | 1/264 | Text |

Example MSG:  MSG*Please call 999-888-1111 to  confirm pricing on this order~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|

*Name Loop Starts Here*

**N1**                   **Name**

| | N101 | Entity Identifier Code | 2/3 | 'VN' = Vendor |
| | N102 | Name | 1/60 | Vendor name. |

Example N1:   N1*VN*Supplier XYZ~

*Name Loop Ends Here*

*Name Loop Starts Here*

**N1**                   **Name**

| | N101 | Entity Identifier Code | 2/3 | 'ST' = Ship To |
| | N102 | Name | 1/60 | |
| | N103 | ID Code Qualifier | 1/2 | '92' Assigned by buyer |
| | N104 | Identification Code | 2/80 | Owens Corning Plant Code |

Example N1:   N1*ST*Panther Plant*92*1215~

**N3**                   **Address Information**

| | N301 | Address Information | 1/55 | |

Example N3:   N3*One Owens Corning Plantway~

**N4**                   **Geographic Location**

| | N401 | City Name | 2/30 | City |
| | N402 | State Code | 2/2 | State |
| | N403 | Postal Code | 3/15 | Zip Code |
| | N405 | Location Qualifier | 1/2 | 'PL' = Plant |
| | N406 | Location Identification | 1/30 | Owens Corning Plant Code |

Example N4:   N4*Newark*OH*45699**PL*1215~

*Name Loop Ends Here*

*Name Loop Starts Here*

**N1**                   **Name**

| | N101 | Entity Identifier Code | 2/3 | 'BT' = Bill To |
| | N102 | Name | 1/60 | |

Example N1:   N1*BT*Owens Corning~

**N3**                   **Address Information**

| | N301 | Address Information | 1/55 | |

Example N3:   N3*One Owens Corning Billway~

**N4**                   **Geographic Location**

| | N401 | City Name | 2/30 | City |
| | N402 | State Code | 2/2 | State |
| | N403 | Postal Code | 3/15 | Zip Code |

Example N4:   N4*Charleston*WV*25334~

*Name Loop Ends Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|

*Line Item Loop Starts Here*

**POC** — **Purchase Order Baseline Item Data**

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| | POC01 | Assigned Identification | 1/20 | Format 999 |
| | POC02 | Change Reason Type or Code | 2/2 | 'CA' = Change Item<br>'DI' = Delete Item |
| | POC03 | Quantity Ordered | 1/15 | Format 999 |
| | POC04 | Quantity Left to Receive | 1/9 | Format 999 |
| | POC05 | Unit or Basis for Measurement | | |
| | C001 01 | Unit or Basis for Measurement | 2/2 | UOM (ex. EA) |
| | POC06 | Unit Price | 1/17 | Format 999 |
| | POC07 | Basis Unit Price Code | 2/2 | UOM (ex. PE) |
| | POC08 | Product/Service ID Qualifier | 2/2 | 'BP' =  Buyer's Part Number |
| | POC09 | Product/Service ID | 1/48 | Owens Corning Material Code |
| | POC10 | Product/Service ID Qualifier | 2/2 | 'MG' =  Manufacturer's Part Number |
| | POC11 | Product/Service ID | 1/48 | Manufacture's Material Code |
| | POC12 | Product/Service ID Qualifier | 2/2 | 'MF' =  Manufacturer Name |
| | POC13 | Product/Service ID | 1/48 | Manufacturer's  Name |

Example POC:  POC*03*DI*95**EA*0.60*PE*BP*000000000000028508*MG*9999999*MF*Whirlpool~

**LIN** — **Item Identification**

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| | LIN01 | Assigned Identification | 1/20 | Format 999 |
| | LIN02 | Product/Service ID Qualifier | 2/2 | XA (Preferred Part No.) |
| | LIN03 | Product/Service ID | 1/48 | Manufacturer's Part No. |

Example LIN: LIN*00010*XA*ARCNUMBER1234~

**CTP** — **Pricing Information**

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| | CTP02 | Price Identifier Code | 3/3 | 'NET' = Net Item Price |
| | CTP03 | Unit Price | 1/17 | Line Item Net Price<br>KEEP ZERO ON WHOLE CENTS |
| | CTP04 | Quantity | 1/15 | Line Item Quantity |
| | CTP05 | Unit of Measure Code | 2/2 | Price UOM code |
| | CTP10 | Condition Value | 1/10 | Price multiplier factor |

Example CTP:  CTP**NET*1232.50*92*EA*****1~

**MEA** — **Measurements**

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| | MEA02 | Measurement Qualifier | 1/3 | 'MU' = Multiplier |
| | MEA03 | Measurement Value | 1/20 | Price Calculation Numerator Value |

Example MEA:  MEA**MU*1~

**MEA** — **Measurements**

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| | MEA02 | Measurement Qualifier | 1/3 | 'ZZZ' = Mutually Defined |
| | MEA03 | Measurement Value | 1/20 | Price Calculation Divisor Value |

Example MEA:  MEA**ZZZ*35~

**PID**                                **Product Item Description**

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| | PID01 | Item Description Type | 1/1 | 'F' = Free Form |
| | PID05 | Description | 1/80 | |

Example PID:   PID\*F\*\*\*\* Clutch~
                           PID\*F\*\*\*\* ADJ NUT, MORSE~
                           PID\*F\*\*\*\* TL700A

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **PO4** | | **Item Physical Details** | | |
| | PO404 | Packaging Code | 3/5 | 'BAG' Bag Packaging |

Example PO4:  PO4\*\*\*\*BAG~

| | | **TAX** — Tax Reference | | |
|---|---|---|---|---|
| **TAX** | TAX02 | Location ID Qualifier | 1/2 | 'SP' State/Province |
| | TAX03 | Location ID | 1/30 | State Code |
| | TAX12 | Tax Exempt Code | 1/1 | '1' = Yes (Tax Exempt) '2' = No (Not Tax Exempt) |

Example TAX:  TAX\*\*SP\*Ohio\*\*\*\*\*\*\*\*\*1~

| | | **FOB** — F.O.B. Related Instructions | | |
|---|---|---|---|---|
| **FOB** | FOB01 | Shipment Method of Payment | 2/2 | |
| | FOB02 | Location Qualifier | 1/2 | 'ZZ' = Mutually Defined |
| | FOB03 | Description | 1/80 | |

Example FOB:  FOB\*PP\*ZZ\*Destination~

| | | **DTM** — Date/Time Reference | | |
|---|---|---|---|---|
| **DTM** | DTM01 | Date/Time Qualifier | 3/3 | '002' =Delivery Requested '011' = Ship Date |
| | DTM02 | Date | 8/8 | Format CCYYMMDD |

Example DTM:   DTM\*002\*20000911~

| | | **TD5** — Carrier Details | | |
|---|---|---|---|---|
| **TD5** | TD501 | Routing Sequence Code | 1/2 | 'O' = Origin Carrier |
| | TD502 | ID Code Qualifier | 1/2 | '2' = SCAC |
| | TD503 | ID Code | 2/80 | |
| | TD504 | Transportation Method/Type Code | 1/2 | |
| | TD509 | Transit Direction Code | 2/2 | 'BS' = Buyer to Seller |
| | TD510 | Transit Time Direction Qual | 2/2 | 'CD' = Calendar Days |
| | TD511 | Transit Time | 1/4 | |
| | TD512 | Service Level Code | 2/2 | 'G2' = Standard Service |

Example TD5:  TD5\*O\*2\*BNSF\*R\*\*\*\*\*BS\*CD\*7\*G2

| | | **MSG** — Message Text | | |
|---|---|---|---|---|
| **MSG** | MSG01 | Free Form Message Text | 1/264 | Text |

Example MSG:  MSG\*Please call 999-888-1111 to  confirm pricing on this order~

*Line Item Loop Ends Here*

**CTT**                   **Transaction Totals**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | *CTT01* | Number of Line Items | 1/6 | Format 999 |
| | *CTT02* | Hash Total | 1/10 | Total Qty Ordered (Format 999) |

Example CTT:  CTT*17*365~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **SE** | | **Transaction Set Trailer** | | |
| | *SE01* | Number of included segments | 1/6 | Total segments, including the ST and SE segments. |
| | *SE02* | Transaction Set Control Number | 4/9 | Same number as ST02 |

Example SE:  SE*42*000000001~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **GE** | | **Functional Group Trailer** | | |
| | *GE01* | Number of Transaction Sets Included | 1/6 | Total number of transaction sets in functional group |
| | *GE02* | Data Interchange Control Number | 1/9 | Same number as GS06 |

Example GE:  GE*1*243~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **IEA** | | **Interchange Control Trailer** | | |
| | *IEA01* | Number of Functional Groups | 1/5 | Total number of groups in the Interchange |
| | *IEA02* | Interchange Control Number | 9/9 | Same number as ISA13 |

Example IEA:  IEA*1*000000243~

# IX.  Invoice Layout Form 810

Outlined below are requirements for invoice certification and processing.

**Order of Segments** - **It is important that all segments be sent in the order that they are listed in this document.**

Beginning Segment (BIG) – The purchase order number MUST match the data from the 850.  We do not support credit invoices at this time.  **The invoice number in the BIG02 cannot be longer than 16 characters and must not contain any dashes, slashes, spaces, or wildcard symbols.**

Currency (CUR) – segment should exist with USD.

Vendor Number (REF02) – MUST return the vendor number sent in the 850.

Name, Address, Location Loops (N1, N3, N4) – MUST have one loop each with the following qualifiers: Ship-To (ST), Bill-To (BT sold-to) and Remit-To (RE).  The Ship-To and Bill-To must match the information sent on the purchase order.

Terms Segment (ITD) – Must have the ITD12.

Date Segment (DTM) – Must contain the 011 qualifier, "date shipped".

Line Item Information (IT1) – The line item information provided on the invoice **"MUST MIRROR the information" agreed upon in the purchase order acknowledgment.**

IT101 – Line item number sent on the purchase order. The leading zeros are not required.  **The trailing zeros are required.**
IT102 – Quantity agreed upon with the order acknowledgment.
IT103 – UOM sent on the purchase order.  If conversions were required for input into your system, they must be converted back to Owens Corning units when returned on the invoice.
IT104 – Price agreed upon with the order acknowledgment
IT107 – Material code sent on purchase order. The leading zeros are not required.  **The trailing zeros are required.**

**NOTE:  When the 850 PO line item is for a unit price of 10 EA, 100 EA, or 1000 EA; i.e., for example:**

**PO1*00010*12000*EA*22.86**BP*000000000000394193*MG*TAO1FABA1AA05000J*MF*VICKERS CTP**NET*27432*12000*EA*****10**

**and, since there is no provision in the 810 CTP segment to indicate that it is for a unit price of 10/100/1000 EA, then the 810 IT1 line item is calculated for a unit price of 1 EA, as shown in the example below:**

**IT1*00010*12000*EA*2.286**BP*000000000000394193 CTP**NET*27432.00**

Pricing Information (CTP03) – Must contain the extended net price for this line item.  Example: **768.21**

Product Description (PID) – may be the description (only first line needed) from the 850, or can be the supplier's description for the material.

**<u>Subline Item Detail (SLN)</u> – Bill of Lading (BOL) information**

**SLN01** – Equals the same value as in IT101, line item number.
**SLN02** - Equals the Bill of Lading Number.
**SLN03** - Equals "I", which is a code indicating the relationship of the subline items (SLN) to the baseline item (IT1) and indicates "Included".
**SLN04**  - Equals the quantity.  Note: The sum of the BOL quantity (SLN04) must match the IT102 quantity.
**SLN05** - Equals the unit of measure (UOM) and must match the UOM used in IT103.

Total Summary (TDS01) – The TDS01 must total the cost of the CTP amounts, tax, and freight if a SAC segment is included.

Monetary Amount (AMT02) – Total amount without freight, tax, or any additional charges (total of CTP03 data Elements).  Example: **1390.05**

Additional Charges (SAC) – must include the charge ID. Only "D240" code is supported in the SAC02.

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **ISA** | | **Interchange Control Header** | | |
| | *ISA01* | Authorization inf. Qualifier | 2/2 | '00' |
| | *ISA02* | Authorization information | 10/10 | Blank |
| | *ISA03* | Security inf. Qualifier | 2/2 | '00' |
| | *ISA04* | Security information | 10/10 | Blank |
| | *ISA05* | Interchange ID qualifier | 2/2 | Assigned by partner |
| | *ISA06* | Interchange Sender ID | 15/15 | Assigned by partner |
| | *ISA07* | Interchange ID qualifier | 2/2 | '01' |
| | *ISA08* | Interchange Receiver ID | 15/15 | 001317452 (production) 001317452TS (test) |
| | *ISA09* | Interchange date | 6/6 | Format YYMMDD |
| | *ISA10* | Interchange time | 4/4 | Format HHMM |
| | *ISA11* | Interchange Control Standards ID | 1/1 | 'U' |
| | *ISA12* | Interchange version ID | 5/5 | '00400' |
| | *ISA13* | Interchange Control Numbers | 9/9 | Unique sequential number to identify transmissions to trading partner |
| | *ISA14* | Acknowledgment requested | 1/1 | '0'= No Acknowledgement |
| | *ISA15* | Test indicator | 1/1 | 'T' = Test data 'P' = Prod data |
| | *ISA16* | Sub-element separator | 1/1 | '>' |

Example ISA:

ISA*00*          *00*          *01*001317452     *99*999999999       *960911*1136*U*00400*000000243*0*P*>~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **GS** | | **Functional Group Header** | | |
| | *GS01* | Functional ID | 2/2 | 'IN' |
| | *GS02* | Application Sender ID | 2/15 | '001317452' (production) '001317452TS' (test) |
| | *GS03* | Application Receiver ID | 2/15 | Assigned by partner |
| | *GS04* | Data Interchange date | 8/8 | Format CCYYMMDD |
| | *GS05* | Data Interchange time | 4/8 | Format HHMM |
| | *GS06* | Data Interchange control # | 1/9 | Number assigned to the transmission |
| | *GS07* | Responsible Agency Code | 1/2 | 'X' = ANSI X12 |
| | *GS08* | Version/Release | 1/12 | '004010' |

Example GS: GS*IN*001317452*999999999*20000911*1136*243*X*004010~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **ST** | | **Transaction Set Header** | | |
| | *ST01* | Transaction Set ID | 3/3 | '810' |
| | *ST02* | Transaction Set Control Number | 4/9 | Partner assigned sequential number for transaction set |

Example ST:  ST*810*0001~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **BIG** | | **Beginning Segment for Invoice** | | |
| | *BIG01* | Invoice Date | 8/8 | Partner Ship Date Format CCYYMMDD |
| | *BIG02* | Invoice Number | 16 | No dashes, spaces, slashes or wildcard symbols |
| | *BIG03* | Purchase Order Date | 8/8 | Format CCYYMMDD |
| | *BIG04* | Purchase Order Number | 1/22 | OC Assigned PO Number |
| | *BIG07* | Transaction Type Code | 2/2 | 'DR' = Debit (Original Invoice) |

Example BIG:  BIG*00000315*1324595*00000313*4500756052~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **CUR** | | **Currency** | | |
| | *CUR01* | Entity Identifier Code | 2/3 | 'BY' = Buying Party |
| | *CUR02* | Currency Code | 3/3 | |

Example CUR:  CUR*BY*USD~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **REF** | | **Reference Numbers** | | |
| | *REF01* | Reference Number Qualifier | 2/3 | 'VR' = Vendor ID Number |
| | *REF02* | Reference Number | 1/30 | Vendor Number Assigned by Owens Corning. |

Example REF:  REF*VR*0000654321~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|

*Name Loop Starts Here*

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N1** | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'ST' = Ship To |
| | *N102* | Name | 1/60 | |

Example N1:  N1*ST*Panther Plant~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N3** | | **Address Information** | | |
| | *N301* | Address Information | 1/55 | |

Example N3:  N3*One Owens Corning Plantway~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N4** | | **Geographic Location** | | |
| | *N401* | City Name | 2/30 | City |
| | *N402* | State Code | 2/2 | State |
| | *N403* | Postal Code | 3/15 | Zip Code |
| | *N405* | Location Qualifier | 1/2 | 'PL' = Plant |
| | *N406* | Location Identification | 1/30 | Owens Corning Plant Code |

Example N4:  N4*Newark*OH*45699**PL*1215~

*Name Loop Ends Here*

*Name Loop Starts Here*

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N1** | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'BT' = Bill To |
| | *N102* | Name | 1/60 | |

Example N1:  N1*BT*Owens Corning~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N3** | | **Address Information** | | |
| | *N301* | Address Information | 1/55 | |

Example N3:  N3*One Owens Corning Billway ~

| | | | | |
|-----|---------|-------------|---------|-----------------|
| **N4** | | **Geographic Location** | | |
| | *N401* | City Name | 2/30 | City |
| | *N402* | State Code | 2/2 | State |
| | *N403* | Postal Code | 3/15 | Zip Code |

Example N4:  N4*Charleston*WV*25334~

*Name Loop Ends Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|

*Name Loop Starts Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| N1 | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'RE' = Party to receive invoice remittance |
| | *N102* | Name | 1/60 | |

Example N1:  N1*RE*Vendor Name~

| N3 | | **Address Information** | | |
|---|---|---|---|---|
| | *N301* | Remit Address Information | 1/55 | |

Example N3:  N3*One Remit Pkwy ~

| N4 | | **Geographic Location** | | |
|---|---|---|---|---|
| | *N401* | City Name | 2/30 | City |
| | *N402* | State Code | 2/2 | State |
| | *N403* | Postal Code | 3/15 | Zip Code |

Example N4:  N4*City*ST*12345~

*Name Loop Ends Here*

| ITD | | **Terms of Sale/Deferred Terms of Sale** | | |
|---|---|---|---|---|
| | *ITD12* | Description | 1/80 | |

Example ITD:  ITD************ 2% 30 Days, Net 45 Days.~

| DTM | | **Date/Time Reference** | | |
|---|---|---|---|---|
| | *DTM01* | Date/Time Qualifier | 3/3 | '011' = Shipped Date |
| | *DTM02* | Date | 8/8 | Format CCYYMMDD |

Example DTM: DTM*011*20000506~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|

*Line Item Loop Starts Here*

**IT1**                 **Invoice Baseline Item Data**

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
|  | *IT101* | Assigned ID | 1/20 | Unique line number (Format 999) |
|  | *IT102* | Quantity invoiced | 1/10 | Format 999 |
|  | *IT103* | Unit of Measure | 2/2 | Valid ANSI UOM |
|  | *IT104* | Unit Price | 1/17 | Format 999 |

**Note: IT106 and IT107 are not used for Non-Coded Items**

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
|  | *IT106* | Product/Service ID Qualifier | 2/2 | 'BP' = Buyers Part Number |
|  | *IT107* | Product/Service ID | 1/48 | OC's Product (Material) Code |

Example IT1:  IT1*00010*20*CT*61.6**BP*000000000000028508~

**REF**                 **Reference Numbers**

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
|  | *REF01* | Reference Number Qualifier | 2/3 | L1 and L1 indicates "Letters or notes" |
|  | *REF02* | Reference Number | 1/30 | REF02 is not used |
|  | REF03 | Contains the text |  |  |

NAFTA invoice change – Add the requested text to a REF segment at the line item level.   It would look like:

Example REF:  REF*L1**Above item does not qualify for Free Trade Agreement privileges~

**CTP**                 **Pricing Information**

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
|  | *CTP02* | Price Identifier Code | 3/3 | 'NET' = Net Item Price |
|  | *CTP03* | Unit Price | 1/17 | <u>Extended</u> Line Item Net Price |

Example CTP:  CTP**NET*1232.50~

**PID**                 **Product Item Description**

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
|  | *PID01* | Item Description Type | 1/1 | 'F' = Free Form |
|  | *PID05* | Description | 1/80 |  |

Example PID:  PID*F**** Nuts and Bolts     100 Pieces   /CTN~

**SLN**                 **Subline Item Detail**

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
|  | SLN01 | Assigned ID | 1/20 | Line item number (same as IT101) |
|  | SLN02 | Bill of Lading (BOL) Number | 1/20 |  |
|  | SLN03 | Relationship Code | 1/1 | 'I'=Included |
|  | SLN04 | Quantity | 1/15 | Equivalent to IT102 quantity |
|  | SLN05 | Unit of Measure (UOM) | 2/2 | Equivalent to IT103 UOM |

**<u>Example SLN</u>:  SLN*00010*BOL0000001*I*20*CT**

*Line Item Loop Ends Here*

**TDS**                 **Total Monetary Value Summary**

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
|  | *TDS01* | Total Invoice Amount | 1/15 | Total amount due before discounts * USE IMPLIED DECIMAL |

Example TDS: TDS*999988~

**TXI**                    **Tax Information**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | TXI01 | Tax Type Code | 2/2 | 'ST' State Sales Tax |
| | TXI02 | Monetary Amount | 1/18 | |

Example TXI:  TXI*ST*93.26~

<span style="color:red">Only one TXI segment can be used per invoice set.</span>

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|

**AMT**                    **Tax Information**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | AMT01 | Amount Qualifier Code | 1/3 | 'NE' Net Billed (Net Invoice Amount) |
| | AMT02 | Monetary Amount | 1/18 | |

Example AMT:  AMT*NE*835.47~

**SAC**                    **Allowance, Charge, or Service**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | SAC01 | Allowance/Charge ID | 1/1 | 'C' Charge |
| | SAC02 | Charge Code | 1/10 | Only 'D240" is supported |
| | SAC05 | Charge Total Amount | 1/9 | Format 999 <br> * USE IMPLIED DECIMAL |

Example SAC:  SAC*C*D240***17566~

**CTT**                    **Transaction Totals**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | CTT01 | Number of Line Items | 1/6 | Format 999 |

Example CTT:  CTT*2~

**SE**                    **Transaction Set Trailer**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | SE01 | Number of included segments | 1/6 | Total segments, including the ST and SE segments. |
| | SE02 | Transaction Set Control Number | 4/9 | Same number as ST02 |

Example SE:  SE*42*96001~

**GE**                    **Functional Group Trailer**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | GE01 | Number of Transaction Sets included | 1/6 | Total number of transaction sets in functional group |
| | GE02 | Data Interchange Control Number | 1/9 | Same number as GS06 |

Example GE:  GE*1*96~

**IEA**                    **Interchange Control Trailer**

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| | IEA01 | Number of Functional Groups | 1/5 | Total number of group in interchange |
| | IEA02 | Interchange Control Number | 9/9 | Same number as ISA13 |

Example IEA:  IEA*1*000000096~

**X. <u>Advance Ship Notice Layout Form 856</u>**

Outlined below is information provided to help clarify some specific elements as they pertain to Owens Corning.

**<u>Order of Segments</u>** - **It is important that all segments be sent in the order that they are listed in this document.**

<u>Shipment Identification (BSN02)</u> – A unique number assigned by the sender to identify a specific shipment.

<u>Net (Material) Weight (MEA03, MEA02=N)</u> – This is the product weight plus packaging weight for the entire shipment.

<u>Purchase Order Number (PRF01)</u> – The purchase order number from the original Owens Corning purchase order.

<u>Bill of Lading Number (REF02, REF01=BM)</u> - The number assigned by the supplier to identify the Bill of Lading associated with this shipment.  This data element is required by Owens Corning.

<u>Material Payment Reference Number (REF02, REF01=ZZ)</u> – The contents of this field will contain any one of the following:
  - Bill of Lading Number
  - Packing Slip Number
  - Waybill Number
  - As agreed upon with the purchasing agent.

For vendors paid via ERS this will be the remittance on the check or EFT or displayed on the vendor portal.

<u>Freight Bill Number (REF02, REF01=FR)</u> – This is also referred to as the carrier reference number.  It should contain the freight payment reference information (PRO number).  If you send in freight bills via the Carrier Portal, fax, paper or EDI, then this information will be used to match against those bills.

<u>Vendor Number (REF02, REF01=VR)</u> – Vendor ID Number assigned by Owens Corning.  This ID number was sent on the original purchase order.  This data element is required by Owens Corning.

<u>Plant Identification Code (N104, N101=ST or N406, N405=PL and N101=ST)</u> - 4-digit plant code where the shipment is being delivered.  A list of Owens Corning plant names and corresponding plant codes will be provided upon request.

<u>Product/Service ID (LIN03, LIN02=BP)</u> - Owens Corning product/material code.  Occasionally OC may send a line item without a material code.  If you are returning the ASN for a non coded line item, enter the text of NON CODED in the place of the OC material code.

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **ISA** | | **Interchange Control Header** | | |
| | *ISA01* | Authorization inf. Qualifier | 2/2 | '00' |
| | *ISA02* | Authorization information | 10/10 | Blank |
| | *ISA03* | Security inf. Qualifier | 2/2 | '00' |
| | *ISA04* | Security information | 10/10 | Blank |
| | *ISA05* | Interchange ID qualifier | 2/2 | Assigned by partner |
| | *ISA06* | Interchange Sender ID | 15/15 | Assigned by partner |
| | *ISA07* | Interchange ID qualifier | 2/2 | '01' |
| | *ISA08* | Interchange Receiver ID | 15/15 | 001317452 (production) 001317452TS (test) |
| | *ISA09* | Interchange date | 6/6 | Format YYMMDD |
| | *ISA10* | Interchange time | 4/4 | Format HHMM |
| | *ISA11* | Interchange ctl standards ID | 1/1 | 'U' |
| | *ISA12* | Interchange version ID | 5/5 | '00400' |
| | *ISA13* | Interchange Control Numbers | 9/9 | Unique sequential number to identify transmissions to trading partner |
| | *ISA14* | Acknowledgment requested | 1/1 | '0'= No ack |
| | *ISA15* | Test indicator | 1/1 | 'T' = Test data 'P' = Prod data |
| | *ISA16* | Sub-element separator | 1/1 | '>' |

Example ISA:

ISA*00*    *00*     *99*999999999    *01*001317452    *000911*1136*U*00400*000000243*0*P*>~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **GS** | | **Functional Group Header** | | |
| | *GS01* | Functional ID | 2/2 | 'SH' |
| | *GS02* | Application Sender ID | 2/15 | Assigned by partner |
| | *GS03* | Application Receiver ID | 2/15 | 001317452 (production) 001317452TS (test) |
| | *GS04* | Data Interchange date | 8/8 | Format CCYYMMDD |
| | *GS05* | Data Interchange time | 4/8 | Format HHMM |
| | *GS06* | Data Interchange control # | 1/9 | Number assigned to the transmission |
| | *GS07* | Responsible Agency Code | 1/2 | 'X' = ANSI X12 |
| | *GS08* | Version/Release | 1/12 | '004010' |

Example GS: GS*SH*999999999*001317452*20000911*1136*243*X*004010~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **ST** | | **Transaction Set Header** | | |
| | *ST01* | Transaction Set ID | 3/3 | '856' |
| | *ST02* | Transaction Set Control Number | 4/9 | Assigned sequential number for transaction sets |

Example ST:  ST*856*000000001~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **BSN** | | **Beginning Segment for Ship Notice** | | |
| | *BSN01* | Transaction Set Purpose Code | 2/2 | '00' - Original |
| | *BSN02* | Shipment Identification | 2/30 | A unique number assigned by the sender to identify a specific shipment. |
| | *BSN03* | Date | 8/8 | Date the transaction set is created. Format CCYYMMDD. |
| | *BSN04* | Time | 4/8 | Time the transaction set is created. Format hhmm. |

Example BSN:  BSN*00*0894568721*20020522*1045~

*Shipment Level Information Loop Starts Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **HL** | | **Hierarchical Level** | | |
| | *HL01* | Hierarchical ID Number | 1/12 | Will be a unique number for each occurrence of the HL segment. usually sequential numbers are used to indicate the number of occurrences of the HL segment. |
| | *HL03* | Hierarchical Level Code | 1/2 | 'S' – Shipment level information. |

Example HL:  HL*1**S~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **MEA** | | **Measurements** | | |
| | *MEA02* | Measurement Qualifier | 1/3 | 'N' = NET This is the product weight plus packaging weight for the entire shipment. |
| | *MEA03* | Measurement Value | 1/20 | Numeric measurement value. |
| | *MEA04* | Unit of Basis for Measurement Code | 2/2 | If MEA02 = 'G' then the only valid values for MEA04 are: 'KG' – Kilograms 'LB' – Pounds 'TG' – Tons |

Example MEA:   MEA**G*200000*LB~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **MEA** | | **Measurements** | | |
| | *MEA02* | Measurement Qualifier | 1/3 | 'LN' = Length |
| | *MEA03* | Measurement Value | 1/20 | Numeric measurement value. If TD504 = M or R then MEA03 is the length of a truck bed or rail car. If TD504 = A or O then MEA03 is the length of the container. |
| | *MEA04* | Unit of Basis for Measurement Code | 2/2 | If MEA02 = 'LN' then the only valid value for MEA04 is: 'FT' – Feet |

Example MEA:   MEA**LN*45*FT~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **TD5** | | **Carrier Details  (Routing Sequence)** | | |
| | *TD502* | ID Code Qualifier | 1/2 | '2' = SCAC |
| | *TD503* | ID Code | 2/80 | SCAC value – Standard Carrier Alpha Code. |
| | *TD504* | Transportation Method/Type Code | 1/2 | 'A' – Air<br>'M' – Motor (common carrier)<br>'O' – Ocean<br>'R' – Rail<br>'LT' – Less Than Trailer Load (LTL). IF 'LT" used, implies motor carrier. |

Example TD5:  TD5**2*HTLM*M~  or  TD5****R~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **TD3** | | **Carrier Details (Equipment)** | | |
| | *TD301* | Equipment Description Code | 2/2 | NOTE: If this shipment is an LTL (Less Than Trailer Load) then the TD504 value of 'LT' will be used and only the TD303 will be sent to indicate the equipment number. |
| | *TD303* | Equipment Number | 1/10 | If TD504 = 'M' or 'LT' then this value will be the truck number.<br>If TD504 = 'R' then this value will be the rail car number.<br>If TD504 = 'A' or 'O' then this value will be the container number. |

Example TD3:  TD3*FT**12345678~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **REF** | | **Reference Numbers** | | |
| | *REF01* | Reference Identification Qualifier | 2/3 | 'BM' = Bill of Lading Number. |
| | *REF02* | Reference Identification | 1/30 | |

Example REF:  REF*BM* 7508321053~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **REF** | | **Reference Numbers** | | |
| | *REF01* | Reference Identification Qualifier | 2/3 | 'FR' = Freight Bill Number: a carrier freight payment reference number |
| | *REF02* | Reference Identification | 1/30 | |

Example REF:  REF*FR*873421~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **REF** | | **Reference Numbers** | | |
| | *REF01* | Reference Identification Qualifier | 2/3 | VR' = Vendor ID Number: Owens Corning assigned vendor number. |
| | *REF02* | Reference Identification | 1/30 | |

Example REF:  REF*VR*0000654321~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **REF** | | **Reference Numbers** | | |
| | *REF01* | Reference Identification Qualifier | 2/3 | 'ZZ' = Mutually Defined as the material payment reference number |
| . | *REF02* | Reference Identification | 1/30 | |

Example REF:  REF*ZZ*1234567890~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **DTM** | | **Date/Time Reference** | | |
| | *DTM01* | Date/Time Qualifier | 3/3 | '011' = Shipped Date/Time |
| | | | | '017' = Estimated Delivery Date/Time. |
| | *DTM02* | Date | 8/8 | Format CCYYMMDD |
| | *DTM03* | Time | 4/8 | Format hhmm (hours/minutes). |

Example DTM:  DTM*011*20021026*0900~
DTM*017*20021101*1015~


*Name Loop Starts Here*


| | | | | |
|---|---|---|---|---|
| **N1** | | **Name** | | |
| | *N101* | Entity Identifier Code | 2/3 | 'ST' = Ship To |
| | *N102* | Name | 1/60 | Ship to name. |
| | *N103* | Identification Code Qualifier | 1/2 | '92' = Assigned by buyer. |
| | *N104* | Identification Code | 2/80 | Ship to plant ID or location code. |

NOTE: The ship to plant ID (location code) can also be mapped using the N405 and N406 data elements.
However, if it is mapped in both the N1 and N4 segments then only the N1 value will be used.

Example N1:  N1*ST*Ship To Name*92*1070~


| | | | | |
|---|---|---|---|---|
| **N3** | | **Address Information** | | |
| | *N301* | Ship To Address Information | 1/55 | |
| | *N302* | Ship To Address Information | 1/55 | |

Example N3:  N3*One Ship To Pkwy*Dock Number 3~


| | | | | |
|---|---|---|---|---|
| **N4** | | **Geographic Location** | | |
| | *N401* | City Name | 2/30 | City |
| | *N402* | State Code | 2/2 | State |
| | *N403* | Postal Code | 3/15 | Zip Code |
| | *N404* | Country Code | 2/3 | Country Code (USA) |
| | *N405* | Location Qualifier | 1/2 | 'PL' – Plant (Ship To Code) |
| | *N406* | Location Identifier | 1/30 | Ship to plant ID (location code). Please see the NOTE under the N1 segment. |

Example N4:  N4*City*ST*12345*USA*PL*1070~


*Name Loop Ends Here*

| **Seg** | **Element** | **Description** | **Min/Max** | **Code/Definition** |
|---------|-------------|-----------------|-------------|---------------------|

*Name Loop Starts Here*

| **N1** | | **Name** | | |
|--------|------|-------------------------|------|---------------------------|
| | N101 | Entity Identifier Code | 2/3 | 'SF' = Ship From |
| | N102 | Name | 1/60 | |
| | N103 | ID Code Qualifier | 1/2 | '92' Assigned by buyer |
| | N104 | Identification Code | 2/80 | Vendor Number |

Example N1:  N1*SF*Ship From Name*92*123456~

| **N3** | | **Address Information** | | |
|--------|------|-------------------------|------|---|
| | N301 | Address Information | 1/55 | |
| | N301 | Address Information | 1/55 | |

Example N3:  N3*Street Address*PO Box 123~

| **N4** | | **Geographic Location** | | |
|--------|------|-------------------------|------|-------|
| | N401 | City Name | 2/30 | City |
| | N402 | State Code | 2/2 | State |
| | N403 | Postal Code | 3/15 | Zip Code |

Example N4:  N4*Charleston*WV*25334~

*Name Loop Ends*

*Shipment Level Information Loop Ends Here*

*Order Level Information Loop Starts Here*

| **HL** | | **Hierarchical Level** | | |
|--------|------|---------------------------|------|------------------------------------------------------------|
| | HL01 | Hierarchical ID Number | 1/12 | Will be a unique number for each occurrence of the HL segment. usually sequential numbers are used to indicate the number of occurrences of the HL segment. |
| | HL03 | Hierarchical Level Code | 1/2 | 'O' – Order level information. |

Example HL:  HL*1**O~

| **PRF** | | **Purchase Order Reference** | | |
|---------|-------|------------------------------|------|-------------------------------------------------------|
| | PRF01 | Purchase Order Number | 1/22 | Purchase order number from the original purchase order. |

Example PRF:  PRF*4501510617~

*Order Level Information Loop Ends Here*

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|

*Line Item Level Information Loop Starts Here (repeats for as many line items as necessary)*

**HL**      **Hierarchical Level**

*HL01*    Hierarchical ID Number    1/12    Will be a unique number for each occurrence of the HL segment. usually sequential numbers are used to indicate the number of occurrences of the HL segment.

*HL03*    Hierarchical Level Code    1/2    'I' – Item level information.

Example HL:  HL*1**I~

**LIN**      **Item Identification**

*LIN01*    Assigned Identification    1/20    Line number from original purchase order.

*LIN02*    Product/Service ID Qualifier    2/2    'BP' = Buyer's Part Number

*LIN03*    Product/Service ID    1/48    Owens Corning's Product (Material) Code or NON CODED if no material code was sent on purchase order

Example LIN:  LIN*10*BP*28856~
                 LIN*10*BP*NON CODED~

**SN1**      **Item Detail**

*SN102*    Number of units shipped    1/10    Numeric value of the number of units shipped.

*SN103*    Unit or Basis for Measurement Code    2/2    Unit of measure for item shipped.

Example SN1:  SN1**10*TG~

**PID**      **Product Item Description**

*PID01*    Item Description Type    1/1    'F' = Free Form

*PID05*    Description    1/80    Product description text.

NOTE: Only one PID segment will be used by Owens Corning.  If multiple PID segments are sent then only the first PID segment will be used.

Example PID:  PID*F****Raw Material ABC~

*Line Item Level Information Loop Ends Here*

**CTT**      **Transaction Totals**

*CTT01*    Number of Line Items    1/6    This is the number of LIN segments.  Format 999

Example CTT:  CTT*17~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|

**SE**       **Transaction Set Trailer**

| | *SE01* | Number of included segments | 1/6 | Total segments, including the ST and SE segments |
| | *SE02* | Transaction Set Control Number | 4/9 | Same number as ST02 |

Example SE:  SE*42*000000001~


**GE**       **Functional Group Trailer**

| | *GE01* | Number of Trans. Sets included | 1/6 | Total number of transaction sets in functional group |
| | *GE02* | Data Interchange Control Number | 1/9 | Same number as GS06 |

Example GE:  GE*1*243~


**IEA**       **Interchange Control Trailer**

| | *IEA01* | Number of Functional Groups | 1/5 | Total number of groups in interchange |
| | *IEA02* | Interchange Control Number | 9/9 | Same number as ISA13 |

Example IEA:  IEA*1*000000243~

### XI.  Text Message 864

Outlined below is information provided to help clarify some specific elements as they pertain to Owens Corning. The X12 864 Text Message will be sent when Owens Corning detects data content errors on inbound transaction sets (810 Invoices, 855 PO Acknowledgements or 856 Advance Ship Notices).

**Order of Segments** - **It is important that all segments be sent in the order that they are listed in this document.**

Transaction Set Purpose Code (BMG01) – A code used to indicate the purpose of this transaction set.  It will always be a value of "00" which indicates an original transmission of the document.

Reference Identification (MIT01) – A unique number assigned by the sender to identify this specific message.

Description or Message Subject (MIT02) – The subject of the message.

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **ISA** | | **Interchange Control Header** | | |
| | *ISA01* | Authorization Information Qualifier | 2/2 | '00' |
| | *ISA02* | Authorization Information | 10/10 | Blank |
| | *ISA03* | Security Information Qualifier | 2/2 | '00' |
| | *ISA04* | Security Information | 10/10 | Blank |
| | *ISA05* | Interchange ID qualifier | 2/2 | '01' |
| | *ISA06* | Interchange Sender ID | 15/15 | '001317452' (production) '001317452TS' (test) |
| | *ISA07* | Interchange ID qualifier | 2/2 | Assigned by partner |
| | *ISA08* | Interchange Receiver ID | 15/15 | Assigned by partner |
| | *ISA09* | Interchange date | 6/6 | Format YYMMDD |
| | *ISA10* | Interchange time | 4/4 | Format HHMM |
| | *ISA11* | Interchange ctl standards ID | 1/1 | 'U' |
| | *ISA12* | Interchange version ID | 5/5 | '00400' |
| | *ISA13* | Interchange Control Numbers | 9/9 | Unique sequential number to identify transmissions to trading partner |
| | *ISA14* | Acknowledgment requested | 1/1 | '0'= No ack |
| | *ISA15* | Test indicator | 1/1 | 'T' = Test data 'P' = Prod Data |
| | *ISA16* | Sub-element separator | 1/1 | '>' |

Example ISA:

ISA*00*       *00*       *01*001317452    *99*999999999    *960911*1136*U*00400*000000243*0*P*>~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **GS** | | **Functional Group Header** | | |
| | *GS01* | Functional ID | 2/2 | 'TX' |
| | *GS02* | Application Sender ID | 2/15 | '001317452' (production) '001317452TS' (test) |
| | *GS03* | Application Receiver ID | 2/15 | Assigned by partner |
| | *GS04* | Data Interchange date | 8/8 | Format CCYYMMDD |
| | *GS05* | Data Interchange time | 4/8 | Format HHMM |
| | *GS06* | Data Interchange control # | 1/9 | Number assigned to the transmission |
| | *GS07* | Responsible Agency Code | 1/2 | 'X' = ANSI X12 |
| | *GS08* | Version/Release | 1/12 | '004010' |

Example GS: GS*TX*001317452*999999999*20000911*1136*243*X*004010~

| Seg | Element | Description | Min/Max | Code/Definition |
|------|---------|-------------|---------|-----------------|
| **ST** | | **Transaction Set Header** | | |
| | *ST01* | Transaction Set ID | 3/3 | '864' |
| | *ST02* | Transaction Set Control Number | 4/9 | Assigned sequential number for transaction sets. |

Example ST:  ST*864*000000001~

| **BMG** | | **Beginning Segment for Text Message** | | |
|------|---------|-------------|---------|-----------------|
| | *BMG01* | Transaction Set Purpose Code | 2/2 | '00' – Original. |

Example BMG:  BMG*00~

| **MIT** | | **Message Identification** | | |
|------|---------|-------------|---------|-----------------|
| | *MIT01* | Reference Identification | 1/30 | Unique number assigned by by Owens Corning. |
| | *MIT02* | Description | 1/80 | Contains the message subject. |

Example MIT:  MIT*0001234567*Owens Corning Invoice Error Notification~

| **MSG** | | **Message Text** | | |
|------|---------|-------------|---------|-----------------|
| | *MSG01* | Free-Form Message Text | 1/264 | Text |
| | *MSG02* | Printer Carriage Control | 2/2 | 'SS' – single space |

Example MSG:  MSG*Information regarding any errors detected*SS~

| **SE** | | **Transaction Set Trailer** | | |
|------|---------|-------------|---------|-----------------|
| | *SE01* | Number of included segments | 1/6 | Total segments, including the ST and SE segments. |
| | *SE02* | Transaction Set Control # | 4/9 | Same number as ST02 |

Example SE:  SE*5*000000001~

| **GE** | | **Functional Group Trailer** | | |
|------|---------|-------------|---------|-----------------|
| | *GE01* | Number of Transaction Sets included | 1/6 | Total number of transaction sets in the functional group |
| | *GE02* | Data Interchange Control # | 1/9 | Same number as GS06 |

Example GE:  GE*1*243~

| **IEA** | | **Interchange Control Trailer** | | |
|------|---------|-------------|---------|-----------------|
| | *IEA01* | Number of Functional Groups | 1/5 | Total number of groups in the interchange |
| | *IEA02* | Interchange Control # | 9/9 | Same number as ISA13 |

Example IEA:  IEA*1*000000243~

## XI. Functional Acknowledgment Layout Form 997

Owens Corning accepts functional acknowledgments for all EDI documents we send.  We send functional acknowledgments to trading partners that send us EDI documents.

For all EDI documents we send, we expect a functional acknowledgment within 24 hours of sending the document.

**Order of Segments** - **It is important that all segments be sent in the order that they are listed in this document.**

We REQUIRE the Functional Acknowledgment to be sent as follows:

No Error in Order:   AK1, AK2, AK5, AK9

Error in Order:   AK1, AK2, AK3, AK4, AK5, AK9

We send the functional acknowledgments as soon as the mapping process is complete.  If you have not received a functional acknowledgment within 24 hours, notify our EDI Hotline.

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **ISA** | | **Interchange Control Header** | | |
| | *ISA01* | Authorization inf. Qualifier | 2/2 | '00' |
| | *ISA02* | Authorization information | 10/10 | Blank |
| | *ISA03* | Security inf. Qualifier | 2/2 | '00' |
| | *ISA04* | Security information | 10/10 | Blank |
| | *ISA05* | Interchange ID qualifier | 2/2 | *1 |
| | *ISA06* | Interchange Sender ID | 15/15 | *2 |
| | *ISA07* | Interchange ID qualifier | 2/2 | *3 |
| | *ISA08* | Interchange Receiver ID | 15/15 | *4 |
| | *ISA09* | Interchange date | 6/6 | Format YYMMDD |
| | *ISA10* | Interchange time | 4/4 | Format HHMM |
| | *ISA11* | Interchange ctl standards ID | 1/1 | 'U' |
| | *ISA12* | Interchange version ID | 5/5 | '00400' |
| | *ISA13* | Interchange Control Numbers | 9/9 | Unique seq number to identify transmissions to trading partner |
| | *ISA14* | Acknowledgment requested | 1/1 | '0'= no ack |
| | *ISA15* | Test indicator | 1/1 | 'T' = Test data 'P' = Prod data |
| | *ISA16* | Sub-element separator | 1/1 | '>' |

Example ISA:

ISA*00*      *00*      *01*999999999   *01*001317452    *960920*0731*U*00400*000000144*0*P*>~

| Seg | Element | Description | Min/Max | Code/Definition |
|---|---|---|---|---|
| **GS** | | **Functional Group Header** | | |
| | *GS01* | Functional ID | 2/2 | 'FA' |
| | *GS02* | Application Sender ID | 2/15 | *2 |
| | *GS03* | Application Receiver ID | 2/15 | *4 |
| | *GS04* | Data Interchange date | 8/8 | Format CCYYMMDD |
| | *GS05* | Data Interchange time | 4/8 | Format HHMM |
| | *GS06* | Data Interchange control # | 1/9 | Number assigned to the transmission |
| | *GS07* | Responsible Agency Code | 1/2 | 'X' = ANSI X12 |
| | *GS08* | Version/Release | 1/12 | '004010' |

Example GS:

GS*FA*999999999*001317452*20000920*0731*144*X*004010~

_____

*1=   If Owens Corning is the sender, the qualifier is '01'.
      If Owens Corning is the receiver, the qualifier is assigned by the trading partner.

*2=   If Owens Corning is the sender, refer to p. 4 for the appropriate Owens ID for this environment
      If Owens Corning is the receiver, the ID is assigned by the trading partner.

*3=   If Owens Corning is the receiver, our qualifier is '01'.
      If Owens Corning is the sender, the qualifier is assigned by the trading partner.

*4=   If Owens Corning is the receiver, refer to p. 4 for the appropriate Owens ID for this environment
      If Owens Corning is the sender, the ID is assigned by the trading partner.

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **ST** | | **Transaction Set Header** | | |
| | *ST01* | Transaction Set ID | 3/3 | '997' |
| | *ST02* | Transaction Set Control Number | 4/9 | Assigned sequential number for trans sets |

Example ST:  ST*997*1440001~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **AK1** | | **Functional Group Response Header** | | |
| | *AK101* | Functional ID code | 2/2 | ID found in GS segment |
| | *AK102* | Data interchange control number | 1/9 | Interchange number of GS segment |

 Example AK1: AK1*PO*255~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **AK2** | | **Transaction Set Response Header** | | |
| | *AK201* | Transaction Set ID code | 3/3 | ID found in ST segment |
| | *AK202* | Transaction Set control number | 4/9 | Transaction Set number of GS |

Example AK2: AK2*850*0001~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **AK3** | | **Data Segment Note** | | |
| | *AK301* | Segment ID code | 2/3 | |
| | *AK302* | Seg Position in Tran Set | 1/6 | |
| | *AK303* | Loop ID Code | 1/4 | |

Example AK3: AK3*PER*25*PER*~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **AK4** | | **Data Element Note** | | |
| | *AK401* | Element Position in Segment | 1/2 | |
| | *AK402* | Data Element Reference Number | 1/4 | |
| | *AK403* | Data Element Syntax Error Code | 1/3 | |

Example AK4: AK4*04*364*7~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **AK5** | | **Transaction Set Response Trailer** | | |
| | *AK501* | Functional Set  Ack Code | 1/1 | 'A'= Accepted<br>'E'= Accepted w/errors<br>'M'= Rejected, Message Authentication Code (MAC) Failed<br>'R'= Rejected<br>'W'= Assurance Failed Validity Tests<br>'X' = Content After Decryption Could Not Be Analyzed |
| | *AK502* | Transaction set syntax error code | 1/3 | |

Example AK5:  AK5*A*4~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **AK9** | | **Functional Group Response Trailer** | | |
| | *AK901* | Functional Group Ack Code | 1/1 | 'A'= Accepted |
| | | | | 'E'= Accepted w/errors |
| | | | | 'P'= At least one trans set was rejected |
| | | | | 'R'= Rejected |
| | *AK902* | Number of transaction sets | 1/6 | Number of trans sets in functional group |
| | *AK903* | Number of received transactions | 1/6 | Number of trans sets received |
| | *AK904* | Number of accepted trans sets | 1/6 | Number of transactions accepted |

Example AK9:  AK9*A*1*1*1~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **SE** | | **Transaction Set Trailer** | | |
| | *SE01* | Number of included segments | 1/6 | Total segments including ST-SE |
| | *SE02* | Transaction Set Control Number | 4/9 | Same number as ST02 |

Example SE:  SE*000004*1440001~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **GE** | | **Functional Group Trailer** | | |
| | *GE01* | Number of Transaction Sets included | 1/6 | Total number of  transaction sets in functional group |
| | *GE02* | Data Interchange Control Number | 1/9 | Same number as GS06 |

Example GE:  GE*1*144~

| Seg | Element | Description | Min/Max | Code/Definition |
|-----|---------|-------------|---------|-----------------|
| **IEA** | | **Interchange Control Trailer** | | |
| | *IEA01* | Number of Functional Groups | 1/5 | Total number of groups in interchange |
| | *IEA02* | Interchange Control Number | 9/9 | Same number as ISA13 |

Example IEA:  IEA*1*000000144~