

Owens Corning Supplier EDI Implementation Guide

Version 4010

I. Introduction

Owens Corning 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 partners 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, 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.

<u>Document Name</u>	<u>S=Send / R=Receive</u>			
	<u>Current</u>		<u>Future</u>	
<i>Customer/Supplier</i>				
810 - Invoice.....	S	R		
820 - Remittance Advice	S	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.....		R	S	
865 - Change P.O. Acknowledgment....		R	S	
879 - Price Change.....			S	R
997 - Functional Acknowledgment.....	S	R		
<i>Motor Carrier</i>				
204 - Shipment Info (Load Tender).....	S			
210 - Freight Details and Invoice.....		R		
214 - Shipment Status Message.....		R		
990 - Response to a Load Tender.....		R		
<i>Rail Carrier</i>				
410 - Freight Details and Invoice.....		R		

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

<u>Character Name</u>	<u>Character</u>	<u>ASCII Hex</u>
Element Separator	*	2A
SubElement Separator	<	3C
Segment Terminator	~	7E

III. Electronic Trade Specifications cont.

Network Providers

We utilize Sterling Software's COMMERCE:NETWORK VAN (Value Added Network). A trading partner can utilize any third party network, provided it has an interconnect with COMMERCE:NETWORK.

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

- 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

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

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POST IMPLEMENTATION / PRODUCTION ENVIRONMENT

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

Owens Corning EDI Hotline
1-800-267-5424

VI. Purchase Order Layout Form 850

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

Purchase Order Number - 10 digits, system generated - always begins with 45 followed by the remaining 8 digits. Example: **4501035306**

Vendor Number - 10 digits, system generated - found in the REF segment, has four leading zeros followed by remaining 6 digits. Example: **0000654321**

Plant Identification - 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 - 18 digits - Owens Corning product/material code. Manufacturer material code, and manufacturer name will be provided if available. The Owens Corning product/material code is filled with leading zeros. Example: **000000000000028508**

Carrier Details - Segment TD5 is provided depending on the shipment type. When included, this field provides the carrier SCAC code.

Manufacture's Material Code / Name - 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 - This additional product data will be included in the PID segment along with the standard product description, when it exist in the SAP application. It is needed to better define the product/material being ordered.

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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'
	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	"
	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	Subelement separator	1/1	'>'

Example ISA:

ISA*00* *00* *01*001317452 *99*999999999 *960911*1136*
U*00401*000000243*0*P*>~

GS		Functional Group Header		
	GS01	Functional ID	2/2	'PO'
	GS02	Application Sender ID	2/15	'001317452'
	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~

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
ST		Transaction Set Header		
	ST01	Transaction Set ID	3/3	'850'
	ST02	Transaction Set Control #	4/9	Assigned sequential # for trans sets

Example ST: ST*850*000000001~

BEG		Beginning Segment for Purchase Order		
	BEG01	Transaction Set Purpose Code	2/2	'00'
	BEG02	Purchase Order Type	2/2	'NE' = Supply Order
	BEG03	Purchase Order Number	1/22	Purchase Order #
	BEG05	Purchase Order Date	8/8	Format CCYYMMDD

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

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 Ref
	REF02	Reference Number	1/30	Vendors Assigned #

Example REF: REF*VR*0000654321~

PER		Administrative Communications Contact		
	PER01	Contact Function Code	2/2	'BD' = Buyer Name
	PER02	Name	1/60	
	PER03	Comm. No. Qualifier	2/2	'TE' = Telephone
	PER04	Comm. 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	

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

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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N9**Reference Numbers**

N901	Reference Ident. Qualifier	2/3	'PO'
N902	Reference Identification	1/30	Purchase Order #

Example N9: N9*PO*4500364981~

MSG**Message Text**

MSG01	Free Form Message Text	1/264	Text
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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	'ST' = Ship To
N102	Name	1/60	
N103	ID Code Qualifier	1/2	'92' Assign 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	
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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	OC Plant Code

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

Name Loop Ends Here

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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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	
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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

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
PO105	Basis Unit Price Code	2/2	UOM (ex. PE)
PO106	Product/Service ID Qualifier	2/2	'BP' = Buyer's Part #
PO107	Product/Service ID	1/48	OC's Material Code
PO108	Product/Service ID Qualifier	2/2	'MG' = Manufacturer Part #
PO109	Product/Service ID	1/48	Mfg'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*PE*BP*0000000000000028508*MG*9999999*MF*Whirlpool~

CTP Pricing Information

CTP02	Price Identifier Code	3/3	'NET' = Net Item Price
CTP03	Unit Price	1/17	Line Item Net Price

Example CTP: CTP**NET*1232.5~

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
PID		Product Item Description		
	PID01	Item Description Type	1/1	'F' = Free Form
	PID05	Description	1/80	
	<u>Example PID:</u> PID*F**** Clutch~ PID*F**** ADJ NUT, MORSE~ PID*F**** TL700A			
TAX		Tax Reference		
	TAX02	Location ID Qualifier	1/2	'SP' State/Prov
	TAX03	Location ID	1/30	
	TAX12	Tax Exempt Code	1/1	
	<u>Example TAX:</u> TAX**SP*Ohio*****1~			
FOB		F.O.B. Related Instructions		
	FOB01	Shipment Method of Payment	2/2	
	FOB02	Location Qualifier	1/2	'ZZ' = Mutually Def.
	FOB03	Description	1/80	
	<u>Example FOB:</u> FOB*PP*ZZ*Destination~			
DTM		Date/Time Reference		
	DTM01	Date/Time Qualifier	3/3	'002' =Delivery Requested
	DTM02	Date	8/8	Format CCYYMMDD
	<u>Example DTM:</u> DTM*002*20000911~			
TD5		Carrier Details		
	TD501	Routing Sequence Code	1/2	'O'
	TD502	ID Code Qualifier	1/2	'2' = SCAC
	TD503	ID Code	2/80	
	<u>Example TD5:</u> TD5*O*2*HTLM~			
MSG		Message Text		
	MSG01	Free Form Message Text	1/264	Text
	<u>Example MSG:</u> MSG*Please call 999-888-1111 to confirm pricing on this order~			

Line Item Loop Ends Here

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
CTT		Transaction Totals		
	CTT01	Number of Line Items	1/6	Format 999
	CTT02	Hash Total	1/10	Total Qty Ordered (Format 999)
	<u>Example CTT:</u> CTT*17*365~			
SE		Transaction Set Trailer		
	SE01	Number of included segments	1/6	Total seg incl ST and SE
	SE02	Transaction Set Control #	4/9	Same # as ST02
	<u>Example SE:</u> SE*42*000000001~			
GE		Functional Group Trailer		
	GE01	Number of Trans. Sets included	1/6	Total # trans sets in functional group
	GE02	Data Interchange Control #	1/9	Same # as GS06
	<u>Example GE:</u> GE*1*243~			
IEA		Interchange Control Trailer		
	IEA01	Number of Functional Groups	1/5	Total # of groups in interchange
	IEA02	Interchange Control #	9/9	Same # as ISA13
	<u>Example IEA:</u> IEA*1*000000243~			

VII. Purchase Order Acknowledgement Layout Form 855

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

ACKNOWLEDGEMENTS are required at the LINE ITEM LEVEL.

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

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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
	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	"
	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	Subelement separator	1/1	'>'

Example ISA:

ISA*00* *00* *99*999999999 *01*001317452 *000911*1136*
U*00401*000000243*0*P*>~

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
	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~

<u>Seg</u> <u>ST</u>	<u>Element</u>	<u>Description</u> Transaction Set Header	<u>Min/Max</u>	<u>Code/Definition</u>
	ST01	Transaction Set ID	3/3	'855'
	ST02	Transaction Set Control #	4/9	Assigned sequential # for trans sets
<u>Example ST</u> : ST*855*000000001~				
BAK	Beginning Segment for Purchase Order Acknowledgment			
	BAK01	Transaction Set Purpose Code	2/2	'00'
	BAK02	Acknowledgment Type	2/2	
	BAK03	Purchase Order Number	1/22	Purchase Order #
	BAK04	Purchase Order Date	8/8	Format CCYYMMDD
<u>Example BAK</u> : BAK*00*AC*4500035306*20000911~				
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 * USE IMPLIED DECIMAL
<u>Example SAC</u> : SAC*C*D240***17566~				

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	2/2	
	PO104	Unit Price	1/17	Format 999
	PO106	Product/Service ID Qualifier	2/2	"BP"=Buyer Part #
	PO107	Product/Service ID	1/48	OC Material Code
<u>Example PO1</u> : PO1*00010*95*EA*0.60**BP*000000000000028508~				
PID	Product Item Description			
	PID01	Item Description Type	1/1	'F' = Free Form
	PID05	Description	1/80	
<u>Example PID</u> : PID*F**** Clutch~ PID*F**** ADJ NUT, MORSE~ PID*F**** TL700A				
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

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
CTT		Transaction Totals		
	CTT01	Number of Line Items	1/6	Format 999
	CTT02	Hash Total	1/10	Total Qty Ordered (Format 999)
	<u>Example CTT:</u> CTT*17*365~			
SE		Transaction Set Trailer		
	SE01	Number of included segments	1/6	Total seg incl ST and SE
	SE02	Transaction Set Control #	4/9	Same # as ST02
	<u>Example SE:</u> SE*42*000000001~			
GE		Functional Group Trailer		
	GE01	Number of Trans. Sets included	1/6	Total # trans sets in functional group
	GE02	Data Interchange Control #	1/9	Same # as GS06
	<u>Example GE:</u> GE*1*243~			
IEA		Interchange Control Trailer		
	IEA01	Number of Functional Groups	1/5	Total # of groups in interchange
	IEA02	Interchange Control #	9/9	Same # as ISA13
	<u>Example IEA:</u> 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. **This document will only contain those line items that have been changed.**

Purchase Order Change or Reason Type Code - The type of change is sent in this field; CP - change purchase order.

Purchase Order Number - 10 digits, system generated - always begins with. Example: **4501035306**

Vendor Number - 10 digits, system generated - found in the REF segment, has four leading zeros followed by remaining 6 digits. Example: **0000654321**

Plant Identification - 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 - 18 digits - Owens Corning product/material code. Manufacturer material code, and manufacturer name will be provided if available. The Owens Corning product/material code is filled with leading zeros. Example: **00000000000028508**

Carrier Details - Segment TD5 is provided depending on the shipment type. When included, this field provides the carrier SCAC code.

Manufacture's Material Code / Name - 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.

Request Reference Number - The BCH07 element contains the document identification number for the change purchase order, assigned by the application. This number will be 16 digits with leading zeros required.

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

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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'
	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	'00401'
	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	Subelement separator	1/1	'>'

Example ISA:

ISA*00* *00* *01*001317452 *99*999999999 *960911*1136*
U*00401*000000243*0*P*>~

GS		Functional Group Header		
	GS01	Functional ID	2/2	'PO'
	GS02	Application Sender ID	2/15	'001317452'
	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~

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
ST		Transaction Set Header		
	ST01	Transaction Set ID	3/3	'860'
	ST02	Transaction Set Control #	4/9	Assigned sequential # for trans sets
	<u>Example ST</u> : ST*860*000000001~			
BCH		Beginning Segment for Purchase Order Change		
	BCH01	Transaction Set Purpose Code	2/2	'04' Change
	BCH02	Purchase Order Type	2/2	'CP' Change to PO
	BCH03	Purchase Order Number	1/22	Purchase Order #
	BCH06	Purchase Order Date	8/8	Format CCYYMMDD
	<u>Example BCH</u> : BCH*04*CP*4500035306**20000911~			
CUR		Currency		
	CUR01	Entity Identifier Code	2/3	'BY' = Buying Party
	CUR02	Currency Code	3/3	
	<u>Example CUR</u> : CUR*BY*USD~			
REF		Reference Numbers		
	REF01	Reference Number Qualifier	2/3	'VR' = Vendor Ref
	REF02	Reference Number	1/30	OC's Vendor #
	<u>Example REF</u> : REF*VR*0000654321~			
PER		Administrative Communications Contact		
	PER01	Contact Function Code	2/2	'BD' = Buyer Name
	PER02	Name	1/60	
	PER03	Comm. No. Qualifier	2/2	'TE' = Telephone
	PER04	Comm. Number	1/80	
	<u>Example PER</u> : PER*BD*John P. Smith*TE*800-555-1212~			
N9		Reference Numbers		
	N901	Reference Ident. Qualifier	2/3	'PO'
	N902	Reference Identification	1/30	Purchase Order #
	<u>Example N9</u> : N9*PO*4500364981~			
MSG		Message Text		
	MSG01	Free Form Message Text	1/264	Text
	<u>Example MSG</u> : MSG*Please call 999-888-1111 to confirm pricing on this order~			

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
<u>Name Loop Starts Here</u>				
N1		Name		
	N101	Entity Identifier Code	2/3	'ST' = Ship To
	N102	Name	1/60	
	N103	ID Code Qualifier	1/2	'92' Assign 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 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	OC Plant Code

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

Name Loop Ends Here

<u>Name Loop Starts Here</u>				
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

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
<u>Line Item Loop Starts Here</u>				
POC	Purchase Order Baseline Item Data			
	POC01	Assigned Identification	1/20	Format 999
	POC02	Change Reason Type or Code	2/2	'CA' Change Item '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 #
	POC09	Product/Service ID	1/48	OC's Material Code
	POC10	Product/Service ID Qualifier	2/2	'MG' = Mfg's Part #
	POC11	Product/Service ID	1/48	Manufacture's Mtl 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~

CTP	Pricing Information			
	CTP02	Price Identifier Code	3/3	'NET' = Net Item Price
	CTP03	Unit Price	1/17	Line Item Net Price KEEP ZERO ON WHOLE CENTS

Example CTP: CTP**NET*1232.50~

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

TAX	Tax Reference			
	TAX02	Location ID Qualifier	1/2	'SP' State/Prov
	TAX03	Location ID	1/30	
	TAX12	Tax Exempt Code	1/1	

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

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

Example FOB: FOB*PP*ZZ*Destination~

Seq DTM	Element	Description Date/Time Reference	Min/Max	Code/Definition
	DTM01	Date/Time Qualifier	3/3	'002' =Delivery Requested
	DTM02	Date	8/8	Format CCYYMMDD
	<u>Example DTM:</u> DTM*002*20000911~			
TD5	Carrier Details			
	TD501	Routing Sequence Code	1/2	'O'
	TD502	ID Code Qualifier	1/2	'2 = SCAC
	TD503	ID Code	2/80	
	<u>Example TD5:</u> TD5*O*2*HTLM~			
MSG	Message Text			
	MSG01	Free Form Message Text	1/264	Text
	<u>Example MSG:</u> MSG*Please call 999-888-1111 to confirm pricing on this order~			
<u>Line Item Loop Ends Here</u>				
CTT	Transaction Totals			
	CTT01	Number of Line Items	1/6	Format 999
	CTT02	Hash Total	1/10	Total Qty Ordered (Format 999)
	<u>Example CTT:</u> CTT*17*365~			
SE	Transaction Set Trailer			
	SE01	Number of included segments	1/6	Total seg including ST and SE
	SE02	Transaction Set Control #	4/9	Same # as ST02
	<u>Example SE:</u> SE*42*000000001~			
GE	Functional Group Trailer			
	GE01	Number of Trans. Sets included	1/6	Total # trans sets in functional group
	GE02	Data Interchange Control #	1/9	Same # as GS06
	<u>Example GE:</u> GE*1*243~			
IEA	Interchange Control Trailer			
	IEA01	Number of Functional Groups	1/5	Total # of groups in Interchange
	IEA02	Interchange Control #	9/9	Same # as ISA13
	<u>Example IEA:</u> IEA*1*000000243~			

IX. Invoice Layout Form 810

Outlined below are requirements for invoice certification and processing.

Beginning Segment (BIG) – the purchase order date and purchase order number **MUST** match the data from the 850. The transaction type code being tested is DR.

Currency (CUR) – segment should exist with USD.

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

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 with purchase order acknowledgment.

- 01 – Line item number sent on the purchase order. The leading zeros are not required. **The trailing zeros are required.**
- 02 – Quantity agreed upon with the order acknowledgment.
- 03 – 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.
- 04 – Price agreed upon with the order acknowledgment
- 07 – Material code sent on purchase order. The leading zeros are not required. **The trailing zeros are required.**

Pricing Information (CTP03) – Must contain the net line item price, prefer zeros on the whole cents.

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

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

Tax (TXI) – Must include as zero if no tax.

Additional Charges (SAC) – must include the charge ID.

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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'
	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	"
	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	Subelement separator	1/1	'>'

Example ISA:

ISA*00* *00* *01*001317452 *99*999999999 *960911*1136*
U*00401*000000243*0*P*>~

GS		Functional Group Header		
	GS01	Functional ID	2/2	'PO'
	GS02	Application Sender ID	2/15	'001317452'
	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~

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
ST		Transaction Set Header		
	ST01	Transaction Set ID	3/3	'810'
	ST02	Transaction Set Control #	4/9	Partner assigned sequential number for transaction set

Example ST: ST*810*0001~

BIG		Beginning Segment for Invoice		
	BIG01	Invoice Date	8/8	Partner Ship Date Format CCYYMMDD
	BIG02	Invoice Number	1/22	Partner Shipment #
	BIG03	Purchase Order Date	8/8	Format CCYYMMDD
	BIG04	Purchase Order Number	1/22	OC Assigned PO #
	BIG07	Transaction Type Code	2/2	DR = Debit (Original Invoice) CR = Credit Memo

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

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
	REF02	Reference Number	1/30	Vendor's Assigned # by OC

Example REF: REF*VR*0000654321~

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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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	OC 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

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
<u>Name Loop Starts Here</u>				
N1		Name		
	N101	Entity Identifier Code	2/3	'RE' = Party to receive invoice remittance
	N102	Name	1/60	
	<u>Example N1:</u> N1*RE*Vendor Name~			

N3		Address Information		
	N301	Remit Address Information	1/55	
	<u>Example N3:</u> 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
	<u>Example N4:</u> N4*City*ST*12345~			

Name Loop Ends Here

ITD		Terms of Sale/Deferred Terms of Sale		
	ITD12	Description	1/80	
	<u>Example ITD:</u> ITD***** 2% 30 Days, Net 45 Days.~			

DTM	Date/Time Reference		
DTM01	Date/Time Qualifier	3/3	011 = Shipped Date Format CCYYMMDD
DTM02	Date	8/8	
<u>Example DTM:</u> DTM*011*00000506~			

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
<u>Line Item Loop Starts Here</u>				
IT1	Invoice Baseline Item Data			
	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
	IT106	Product/Service ID Qualifier	2/2	'BP' = Buyers Part #
	IT107	Product/Service ID	1/48	OC's Product (Material) Code

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

CTP	Pricing Information			
	CTP02	Price Identifier Code	3/3	'NET' = Net Item Price
	CTP03	Unit Price	1/17	Line Item Net Price KEEP DECIMALS ON WHOLE DOLLAR

Example CTP: CTP**NET*1232.50~

PID	Product Item Description			
	PID01	Item Description Type	1/1	'F' = Free Form
	PID05	Description	1/80	

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

Line Item Loop Ends Here

TDS	Total Monetary Value Summary			
	TDS01	Total Invoice Amount	1/15	Total amt due before disc * USE IMPLIED DECIMAL

Example TDS: TDS*999988~

TXI	Tax Information			
	TXI01	Tax Type Code	2/2	'ST' State Sales Tax
	TXI02	Monetary Amount	1/18	KEEP DECIMALS ON WHOLE DOLLAR

Example TXI: TXI*ST*93.26~

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
AMT		Tax Information		
	AMT01	Amount Qualifier Code	1/3	'NE' Net Billed (Net Invoice Amt)
	AMT02	Monetary Amount	1/18	KEEP DECIMALS ON WHOLE DOLLAR
	<u>Example AMT</u> : AMT*NE*835.47~			
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 * USE IMPLIED DECIMAL
	<u>Example SAC</u> : SAC*C*D240***17566~			
CTT		Transaction Totals		
	CTT01	Number of Line Items	1/6	Format 999
	<u>Example CTT</u> : CTT*2~			
SE		Transaction Set Trailer		
	SE01	Number of included segments	1/6	Total seg including ST and SE
	SE02	Transaction Set Control #	4/9	Same # as ST02
	<u>Example SE</u> : SE*42*96001~			
GE		Functional Group Trailer		
	GE01	Number of Trans. Sets included	1/6	Total # trans sets in functional group
	GE02	Data Interchange Control #	1/9	Same # as GS06
	<u>Example GE</u> : GE*1*96~			
IEA		Interchange Control Trailer		
	IEA01	Number of Functional Groups	1/5	Total # of group in interchange
	IEA02	Interchange Control #	9/9	Same # as ISA13
	<u>Example IEA</u> : IEA*1*000000096~			

X. Functional Acknowledgment Layout Form 997

Owens Corning accepts functional acknowledgments for our purchase orders. We send functional acknowledgments to trading partners that send us EDI documents.

For purchase orders, we expect a functional acknowledgment within 24 hours of sending the order.

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 at (800) 267-5424.

<u>Seq</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
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	'00401'
	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	Subelement separator	1/1	'>'

Example ISA:

```
ISA*00*      *00*      *01*999999999  *01*001317452  *960920*0731*
U*00401*000000144*0*P*>~
```

GS		Functional Group Header		
	GS01	Functional ID	2/2	'PO' or 'PC'
	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*PO*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, the ID for the document being acknowledged will be here.
If Owens Corning is the receiver, the qualifier 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, the ID for the document being acknowledged will be here.
If Owens Corning is the sender, the qualifier is assigned by the trading partner.

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
ST		Transaction Set Header		
	ST01	Transaction Set ID	3/3	'997'
	ST02	Transaction Set Control #	4/9	Assigned sequential # for trans sets
<u>Example ST</u> : ST*997*1440001~				
AK1		Functional Group Response Header		
	AK101	Functional ID code	2/2	ID found in GS segment
	AK102	Data interchange control #	1/9	Interchange # of GS seg
<u>Example AK1</u> : AK1*PO*255~				
AK2		Transaction Set Response Header		
	AK201	Transaction Set ID code	3/3	ID found in ST segment
	AK202	Transaction Set control #	4/9	Transaction Set # of GS
<u>Example AK2</u> : AK2*850*0001~				
AK3		Data Segment Note		
	AK301	Segment ID code	2/3	
	AK302	Seg Position in Tran Set	1/6	
	AK303	Loop ID Code	1/4	
<u>Example AK3</u> : AK3*PER*25*PER*~				
AK4		Data Element Note		
	AK401	Element Position in Segment	1/2	
	AK402	Data Element Ref Number	1/4	
	AK403	Data Element Syn Error Code	1/3	
<u>Example AK4</u> : AK4*04*364*7~				

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

Example AK5: AK5*A*4~

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	# of trans sets in functional group
	AK903	# of received transaction	1/6	# of trans sets received
	AK904	# of accepted trans sets	1/6	# of trans accepted

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

<u>Seg</u>	<u>Element</u>	<u>Description</u>	<u>Min/Max</u>	<u>Code/Definition</u>
SE		Transaction Set Trailer		
	SE01	Number of included segments	1/6	Total segments including ST-SE
	SE02	Transaction Set Control #	4/9	Same # as ST02
<u>Example SE:</u> SE*000004*1440001~				
GE		Functional Group Trailer		
	GE01	Number of Trans. Sets included	1/6	Total # trans sets in functional group
	GE02	Data Interchange Control #	1/9	Same # as GS06
<u>Example GE:</u> GE*1*144~				
IEA		Interchange Control Trailer		
	IEA01	Number of Functional Groups	1/5	Total # of groups in interchange
	IEA02	Interchange Control #	9/9	Same # as ISA13
<u>Example IEA:</u> IEA*1*000000144~				