steelXML

The Common XML Schema for the Electronic Procurement of Structural Steel

Volume 7. Advanced Shipment Notice

Version 1.0

American Institute of Steel Construction

Georgia Institute of Technology

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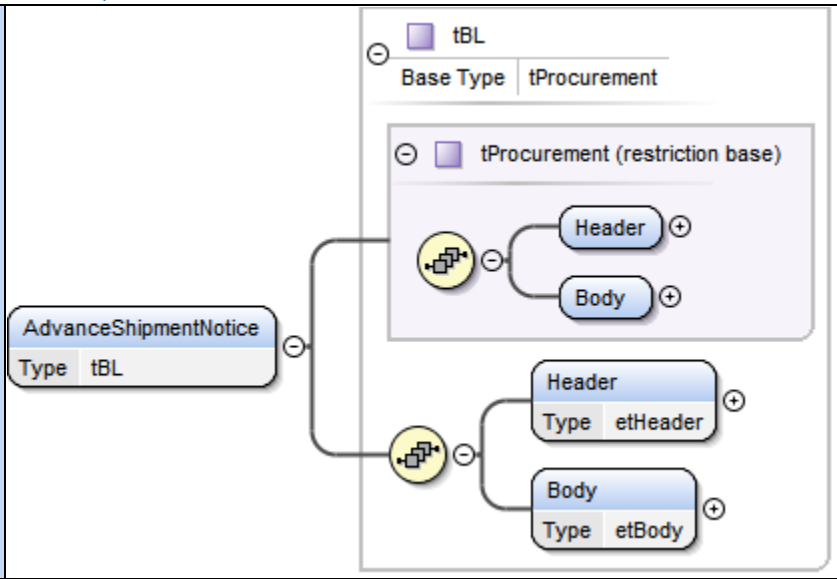
1 Overview

This document describes Advanced Shipment Notice Schema.

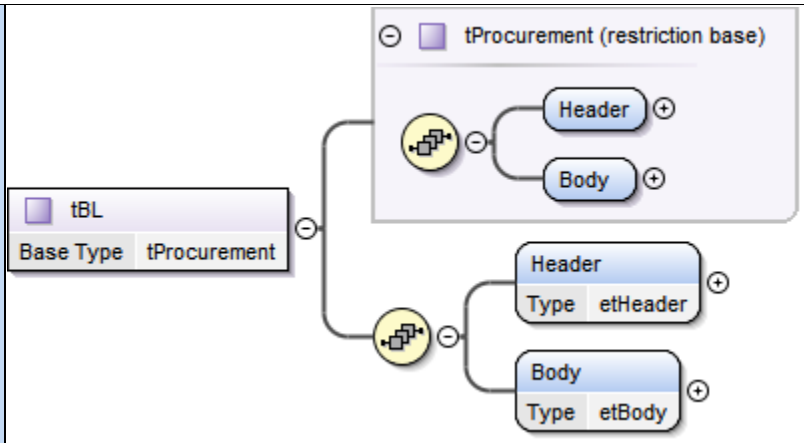
2 Element Type

2.1 AdvanceShipmentNotice

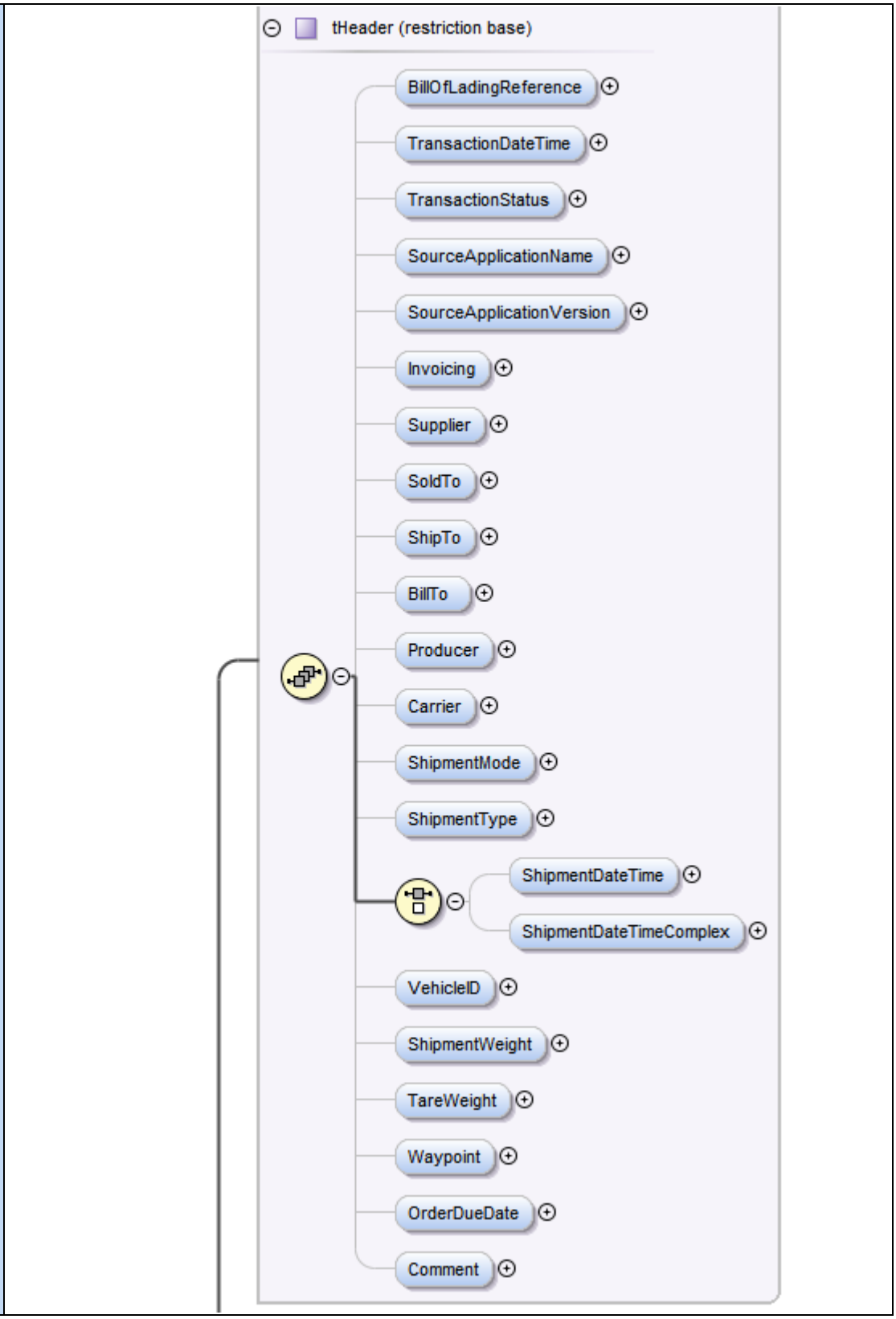
Diagram	
Type	**tBL**
Type hierarchy	**tProcurement** **tBL**
Properties	content: **complex**
Model	**Header** , **Body**
Instance	<AdvanceShipmentNotice xmlns="AISCProcurement"> <Header>{1,1}</Header> <Body>{1,1}</Body> </AdvanceShipmentNotice>
Source	<xs:element name="AdvanceShipmentNotice" type="tBL"/>

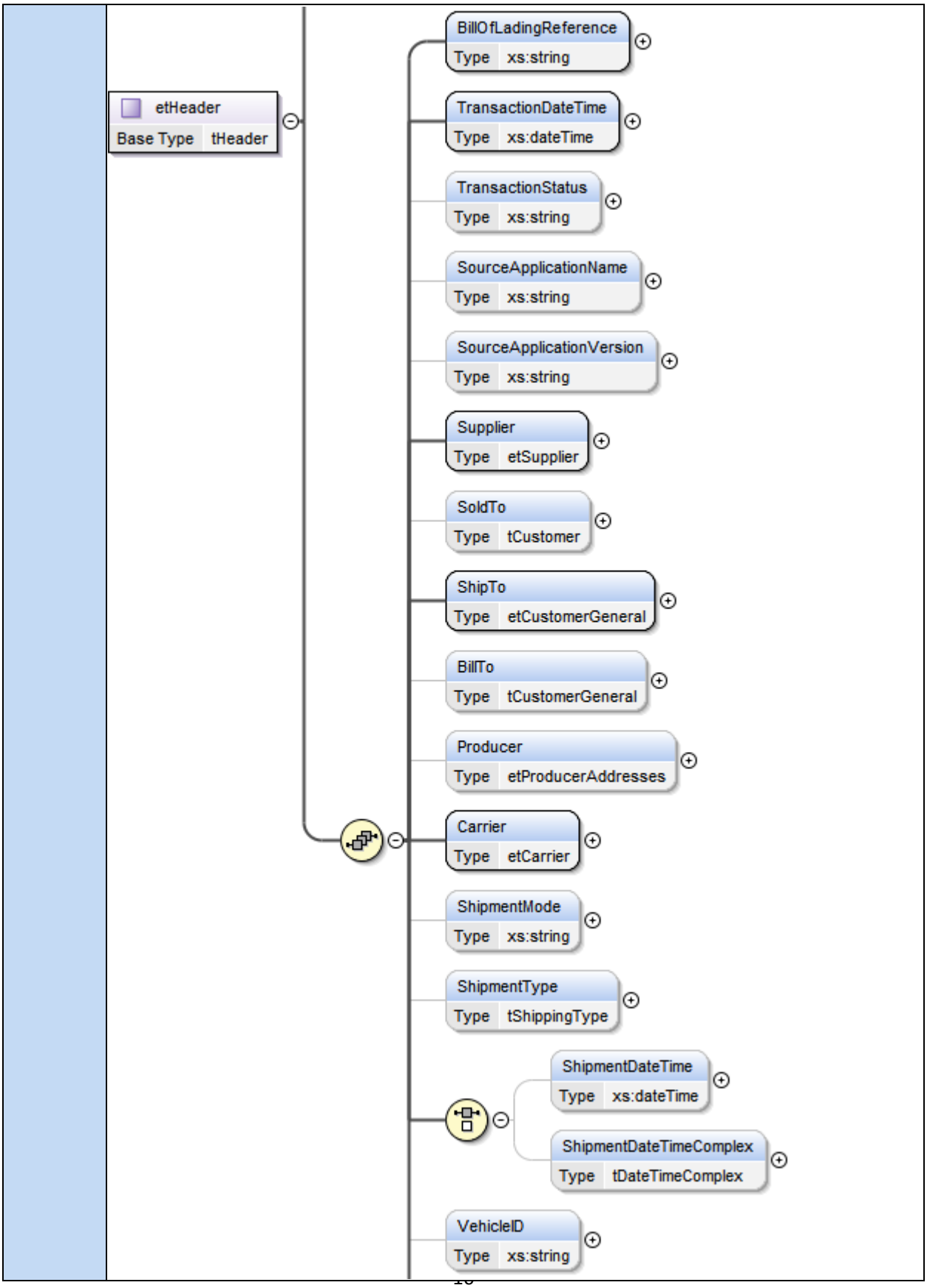
3 Complex Types

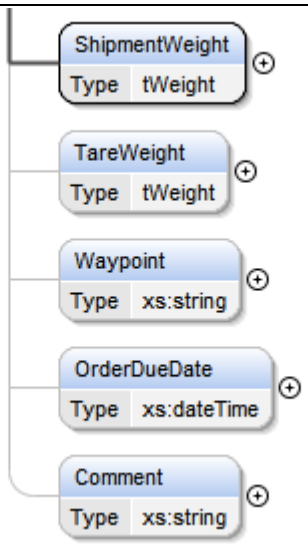
3.1 tBL

Diagram	
Type	restriction of **tProcurement**
Type hierarchy	**tProcurement** **tBL**
Used by	Element **AdvanceShipmentNotice**
Model	**Header** , **Body**
Source	<xs:complexType name="tBL"> <xs:complexContent> <xs:restriction base="tProcurement"> <xs:sequence> <xs:element name="Header" type="etHeader" minOccurs="1"/> <xs:element name="Body" type="etBody" minOccurs="1"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.2 etHeader

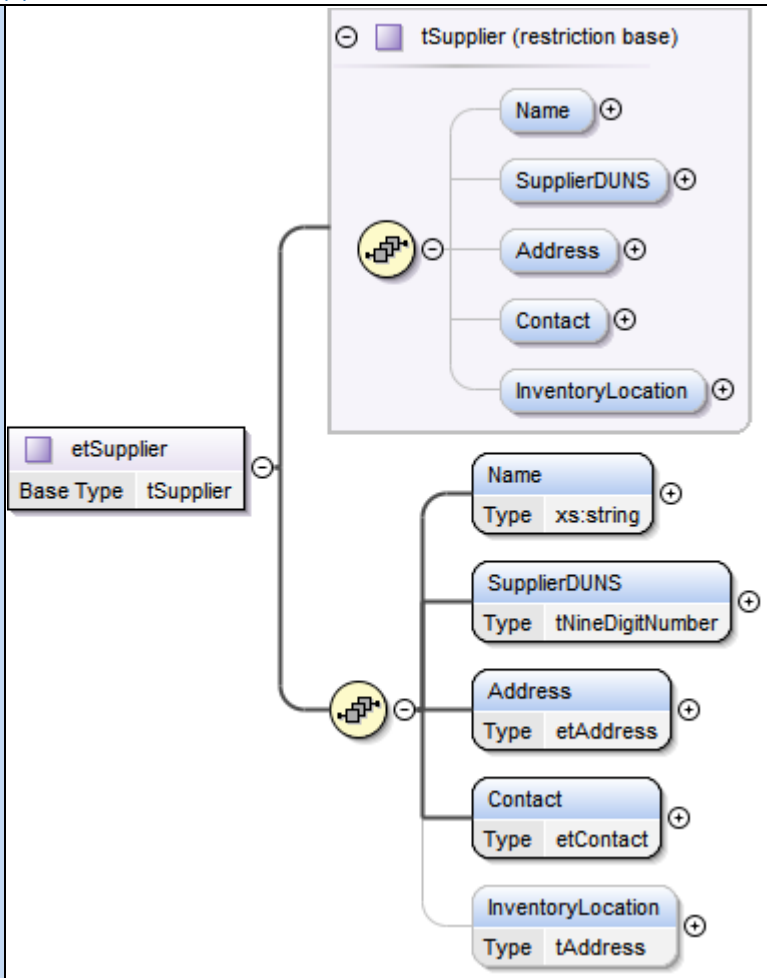
Diagram	


etHeader
Base Type tHeader
BillOfLadingReference
Type xs:string
TransactionDateTime
Type xs:dateTime
TransactionStatus
Type xs:string
SourceApplicationName
Type xs:string
SourceApplicationVersion
Type xs:string
Supplier
Type etSupplier
SoldTo
Type tCustomer
ShipTo
Type etCustomerGeneral
BillTo
Type tCustomerGeneral
Producer
Type etProducerAddresses
Carrier
Type etCarrier
ShipmentMode
Type xs:string
ShipmentType
Type tShippingType
ShipmentDateTime
Type xs:dateTime
ShipmentDateTimeComplex
Type tDateTimeComplex
VehicleID
Type xs:string

	
Type	restriction of **tHeader**
Type hierarchy	**tHeader** **etHeader**
Used by	Element **tBL/Header**
Model	**BillOfLadingReference** , **TransactionDateTime** , **TransactionStatus{0,1}** , **SourceApplicationName{0,1}** , **SourceApplicationVersion{0,1}** , **Supplier** , **SoldTo{0,1}** , **ShipTo** , **BillTo{0,1}** , **Producer{0,1}** , **Carrier** , **ShipmentMode{0,1}** , **ShipmentType{0,1}** , (**ShipmentDateTime{0,1}** | **ShipmentDateTimeComplex{0,1}**) , **VehicleID{0,1}** , **ShipmentWeight** , **TareWeight{0,1}** , **Waypoint{0,1}** , **OrderDueDate{0,1}** , **Comment{0,1}**
Source	<xs:complexType name="etHeader"> <xs:complexContent> <xs:restriction base="tHeader"> <xs:sequence> <xs:element minOccurs="1" name="BillOfLadingReference" type="xs:string"/> <xs:element minOccurs="1" name="TransactionDateTime" type="xs:dateTime"/> <xs:element minOccurs="0" name="TransactionStatus" type="xs:string"/> <xs:element name="SourceApplicationName" type="xs:string" minOccurs="0" maxOccurs="1"/> <xs:element name="SourceApplicationVersion" type="xs:string" minOccurs="0" maxOccurs="1"/> <xs:element name="Supplier" type="etSupplier" minOccurs="1" maxOccurs="1"/> <xs:element name="SoldTo" type="tCustomer" minOccurs="0" maxOccurs="1"/> <xs:element name="ShipTo" type="etCustomerGeneral" minOccurs="1" maxOccurs="1"/> <xs:element name="BillTo" type="tCustomerGeneral" minOccurs="0" maxOccurs="1"/> <xs:element name="Producer" type="etProducerAddresses" minOccurs="0" maxOccurs="1"/> <xs:element name="Carrier" type="etCarrier" minOccurs="1" maxOccurs="1"/>

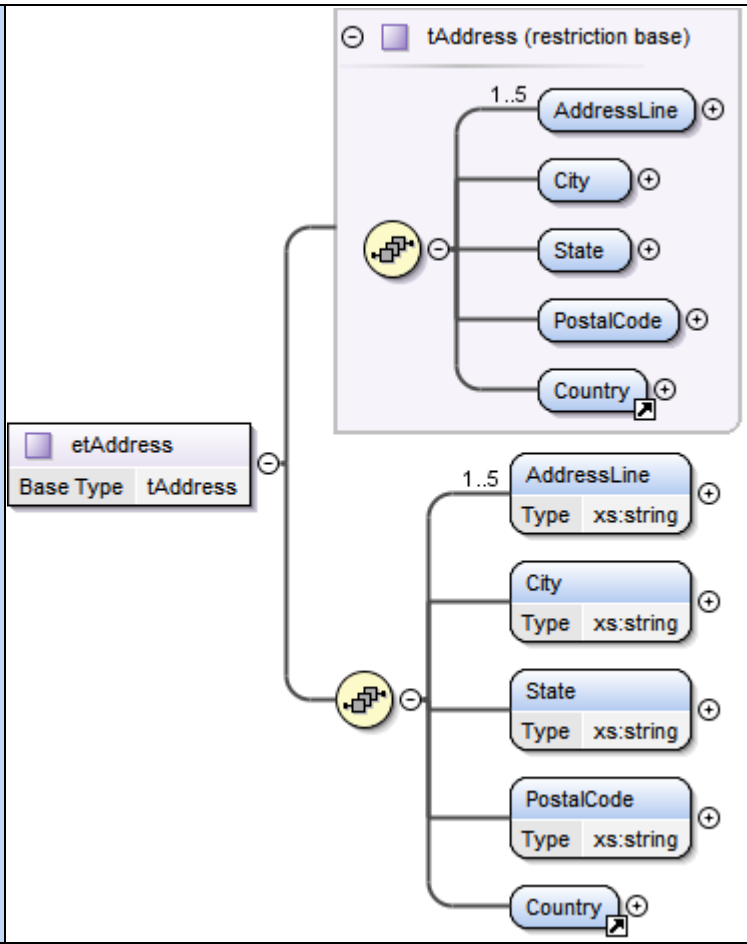
```
        <xs:element minOccurs="0" name="ShipmentMode"
type="xs:string"/>
        <xs:element minOccurs="0" name="ShipmentType"
type="tShippingType"/>
        <xs:choice>
          <xs:element minOccurs="0" name="ShipmentDateTime"
type="xs:dateTime"/>
          <xs:element minOccurs="0" name="ShipmentDateTimeComplex"
type="tDateTimeComplex"/>
        </xs:choice>
        <xs:element minOccurs="0" name="VehicleID"
type="xs:string"/>
        <xs:element minOccurs="1" name="ShipmentWeight"
type="tWeight"/>
        <xs:element minOccurs="0" name="TareWeight" type="tWeight"/>
        <xs:element minOccurs="0" name="Waypoint" type="xs:string"/>
        <xs:element minOccurs="0" name="OrderDueDate"
type="xs:dateTime"/>
        <xs:element name="Comment" type="xs:string" minOccurs="0"
maxOccurs="1"/>
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

3.3 etSupplier

Diagram	
Type	restriction of **tSupplier**
Type hierarchy	**tSupplier** **etSupplier**
Used by	Element **etHeader/Supplier**
Model	**Name , SupplierDUNS , Address , Contact , InventoryLocation{0,1}**
Source	<xs:complexType name="etSupplier"> <xs:complexContent> <xs:restriction base="tSupplier"> <xs:sequence> <xs:element name="Name" type="xs:string" minOccurs="1" maxOccurs="1"/> <xs:element name="SupplierDUNS" type="tNineDigitNumber" minOccurs="1" maxOccurs="1"/> <xs:element name="Address" type="etAddress" minOccurs="1" maxOccurs="1"/> <xs:element name="Contact" type="etContact" minOccurs="1" maxOccurs="1"/> <xs:element name="InventoryLocation" type="tAddress" minOccurs="0" maxOccurs="1"/> </xs:sequence>

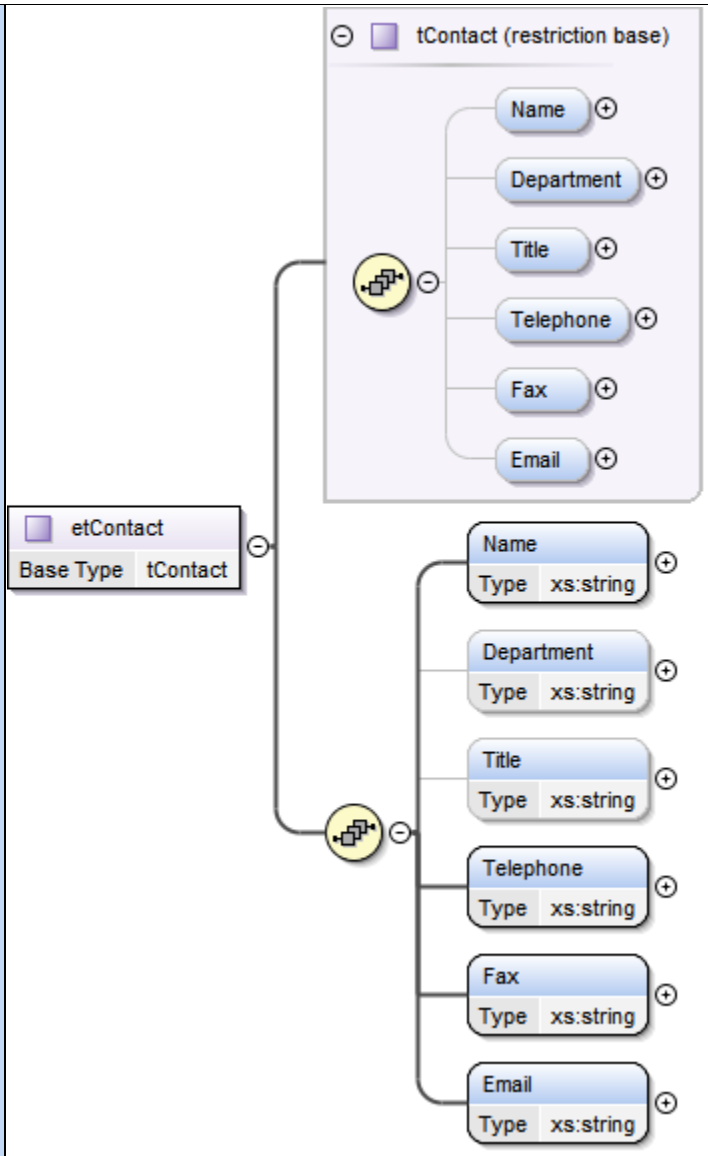
	</xs:restriction> </xs:complexContent> </xs:complexType>

3.4 etAddress

Diagram	
Type	restriction of **tAddress**
Type hierarchy	**tAddress** **etAddress**
Used by	Element **etSupplier/Address**
Model	**AddressLine{1,5}** , **City** , **State** , **PostalCode** , **Country**
Source	<xs:complexType name="etAddress"> <xs:complexContent> <xs:restriction base="tAddress"> <xs:sequence> <xs:element name="AddressLine" type="xs:string" maxOccurs="5"/> <xs:element name="City" type="xs:string"/> <xs:element name="State" type="xs:string"/> <xs:element name="PostalCode" type="xs:string"/> <xs:element ref="Country"/> </xs:sequence> </xs:restriction> </xs:complexContent>

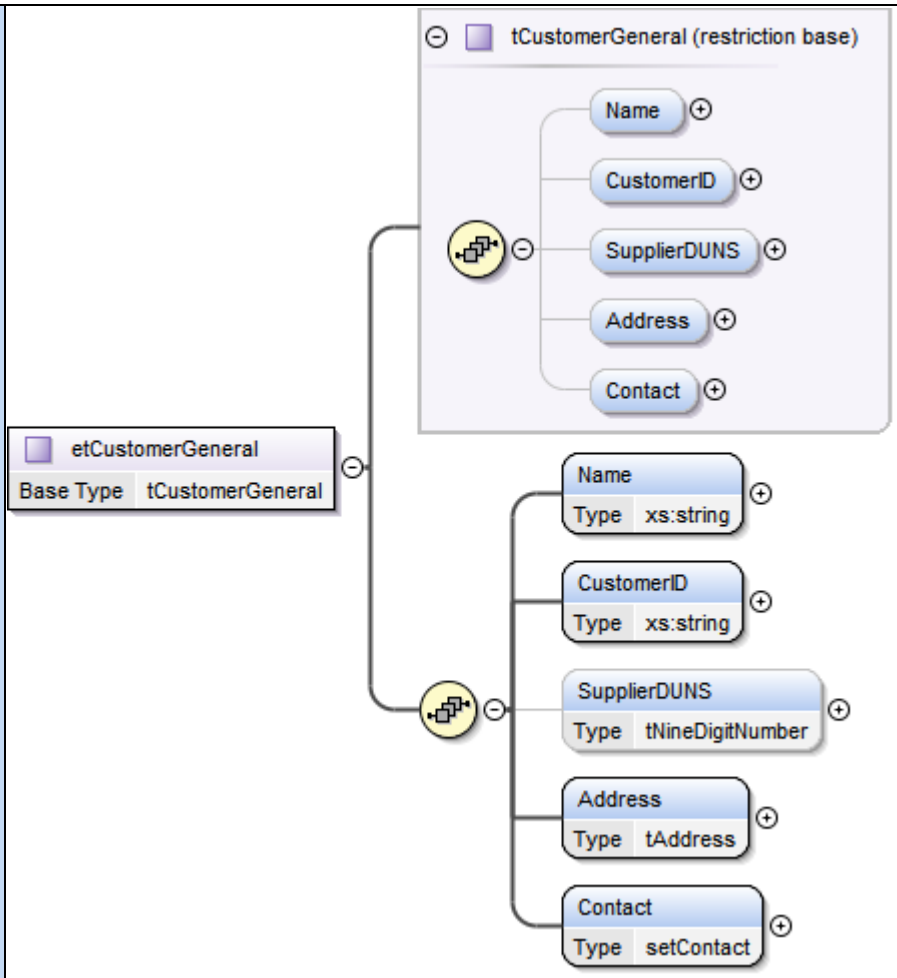
	</xs:complexType>

3.5 etContact

Diagram	
Type	restriction of **tContact**
Type hierarchy	**tContact** **etContact**
Used by	Elements **etAddressContact/Contact**, **etCarrier/Contact**, **etSupplier/Contact**
Model	**Name** , **Department{0,1}** , **Title{0,1}** , **Telephone** , **Fax** , **Email**
Source	<xs:complexType name="etContact"> <xs:complexContent> <xs:restriction base="tContact"> <xs:sequence> <xs:element name="Name" type="xs:string" minOccurs="1" maxOccurs="1"/> <xs:element name="Department" type="xs:string" minOccurs="0" maxOccurs="1"/>

	<xs:element name="Title" type="xs:string" minOccurs="0" maxOccurs="1"/> <xs:element name="Telephone" type="xs:string" minOccurs="1" maxOccurs="1"/> <xs:element name="Fax" type="xs:string" minOccurs="1" maxOccurs="1"/> <xs:element name="Email" type="xs:string" minOccurs="1" maxOccurs="1"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

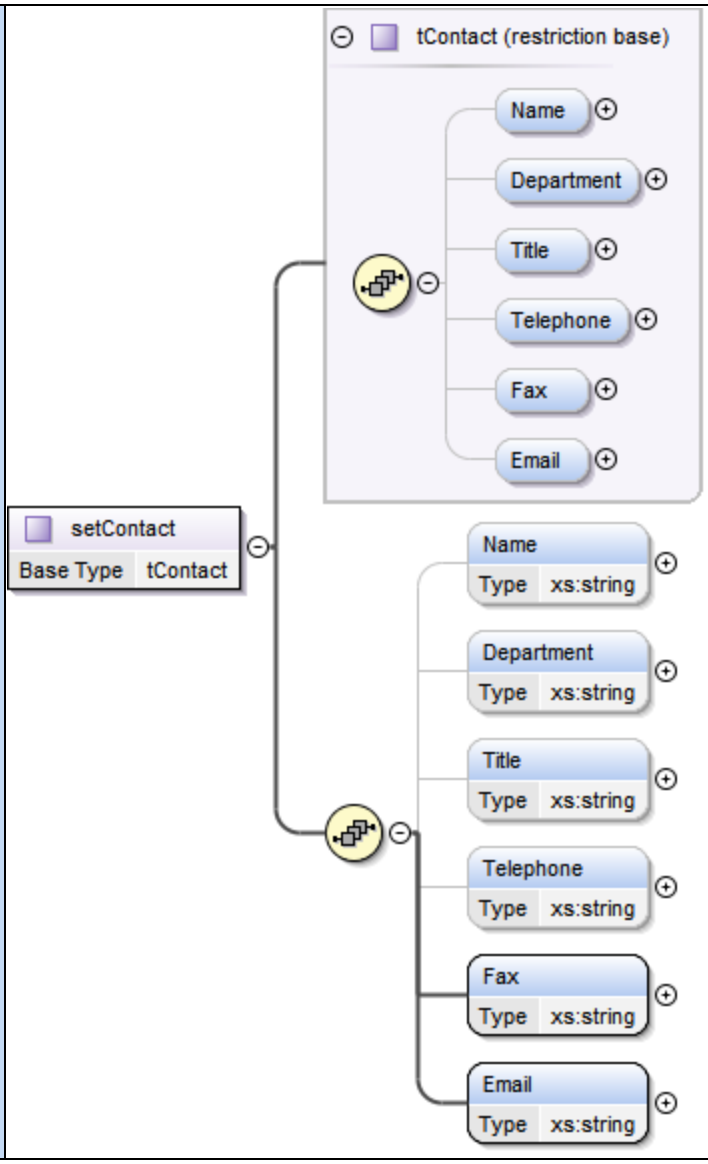
3.6 etCustomerGeneral

Diagram	
Type	restriction of **tCustomerGeneral**
Type hierarchy	**tCustomerGeneral** **etCustomerGeneral**
Used by	Element **etHeader/ShipTo**
Model	**Name** , **CustomerID** , **SupplierDUNS{0,1}** , **Address** , **Contact**
Source	<xs:complexType name="etCustomerGeneral"> <xs:complexContent>

```
    <xs:restriction base="tCustomerGeneral">
      <xs:sequence>
        <xs:element name="Name" type="xs:string" minOccurs="1"
maxOccurs="1"/>
        <xs:element name="CustomerID" type="xs:string" minOccurs="1"
maxOccurs="1"/>
        <xs:element minOccurs="0" name="SupplierDUNS"
type="tNineDigitNumber"/>
        <xs:element name="Address" type="tAddress" minOccurs="1"
maxOccurs="1"/>
        <xs:element name="Contact" type="setContact" minOccurs="1"
maxOccurs="1"/>
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

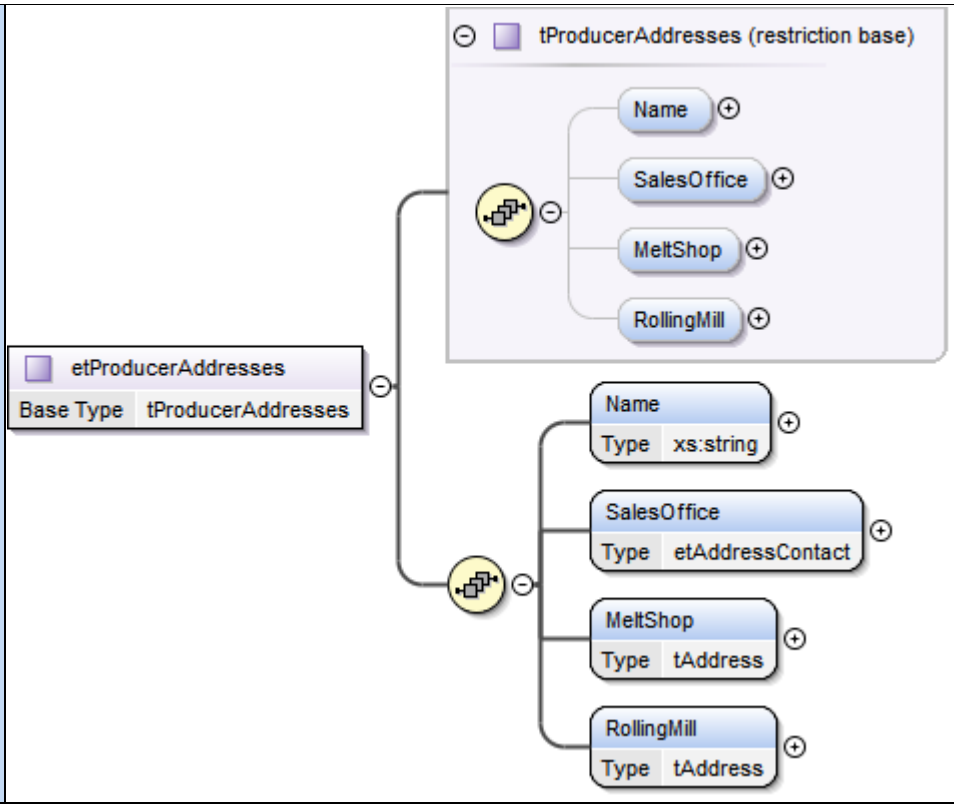
3.7 setContact

Diagram



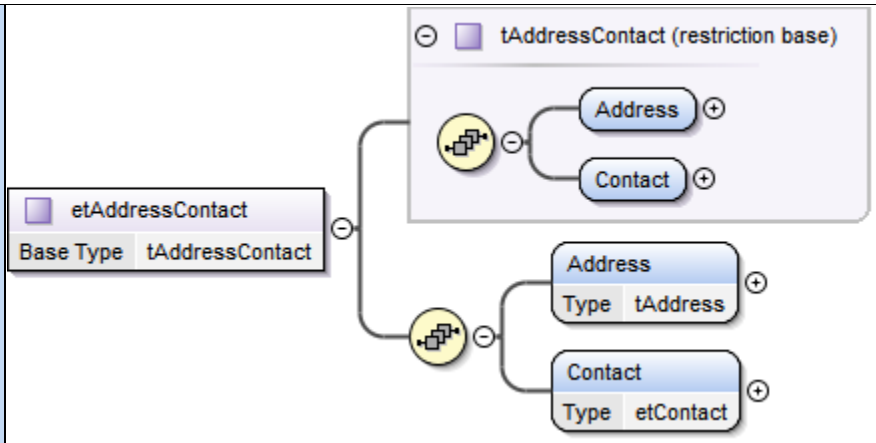
Type	restriction of **tContact**
Type hierarchy	**tContact** **setContact**
Used by	Element **etCustomerGeneral/Contact**
Model	**Name{0,1}** , **Department{0,1}** , **Title{0,1}** , **Telephone{0,1}** , **Fax** , **Email**
Source	<xs:complexType name="setContact"> <xs:complexContent> <xs:restriction base="tContact"> <xs:sequence> <xs:element name="Name" type="xs:string" minOccurs="0" maxOccurs="1"/> <xs:element name="Department" type="xs:string" minOccurs="0" maxOccurs="1"/> <xs:element name="Title" type="xs:string" minOccurs="0" maxOccurs="1"/> <xs:element name="Telephone" type="xs:string" minOccurs="0" maxOccurs="1"/> <xs:element name="Fax" type="xs:string" minOccurs="1" maxOccurs="1"/> <xs:element name="Email" type="xs:string" minOccurs="1" maxOccurs="1"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.8 etProducerAddresses

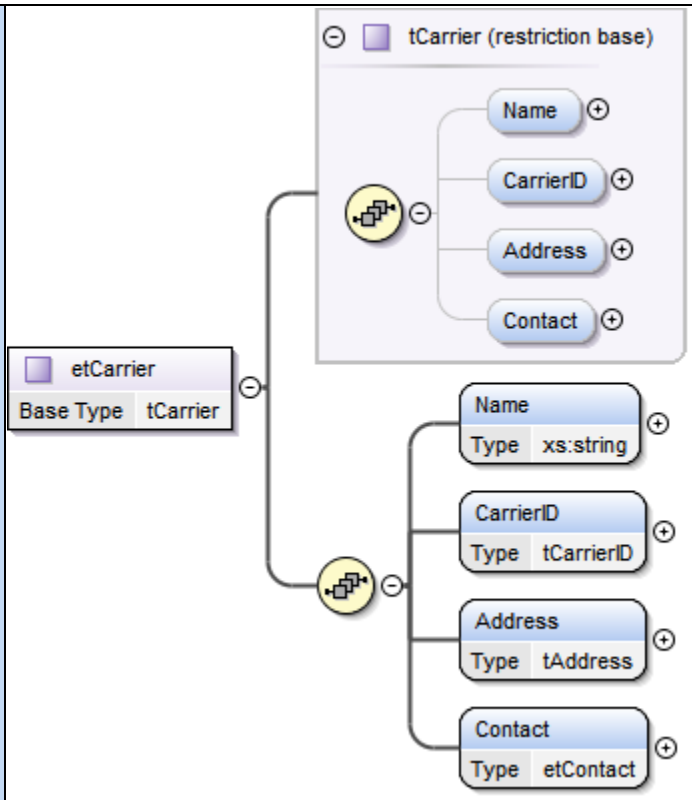
Diagram	

Type	restriction of **tProducerAddresses**
Type hierarchy	**tProducerAddresses** **etProducerAddresses**
Used by	Element **etHeader/Producer**
Model	**Name** , **SalesOffice** , **MeltShop** , **RollingMill**
Source	<xs:complexType name="etProducerAddresses"> <xs:complexContent> <xs:restriction base="tProducerAddresses"> <xs:sequence> <xs:element name="Name" type="xs:string" minOccurs="1" maxOccurs="1"/> <xs:element minOccurs="1" name="SalesOffice" type="etAddressContact"/> <xs:element minOccurs="1" name="MeltShop" type="tAddress"/> <xs:element minOccurs="1" name="RollingMill" type="tAddress"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

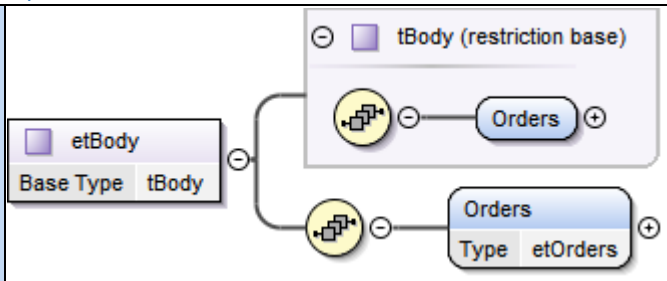
3.9 etAddressContact

Diagram	
Type	restriction of **tAddressContact**
Type hierarchy	**tAddressContact** **etAddressContact**
Used by	Element **etProducerAddresses/SalesOffice**
Model	**Address** , **Contact**
Source	<xs:complexType name="etAddressContact"> <xs:complexContent> <xs:restriction base="tAddressContact"> <xs:sequence> <xs:element name="Address" type="tAddress"/> <xs:element name="Contact" type="etContact"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.10 etCarrier

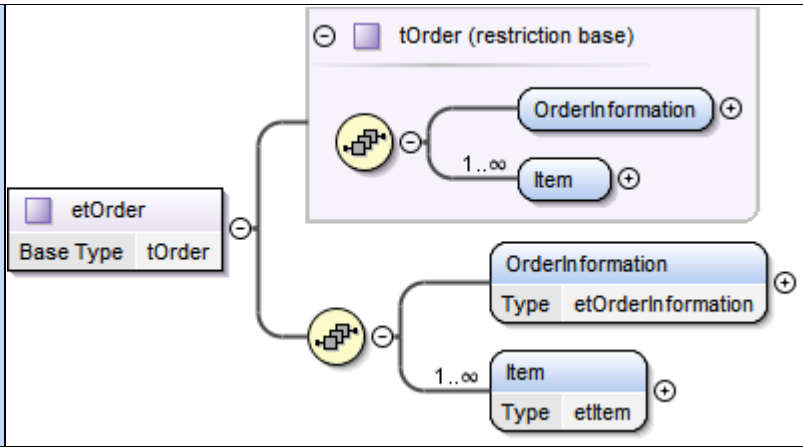
Diagram	
Type	restriction of **tCarrier**
Type hierarchy	**tCarrier** **etCarrier**
Used by	Element **etHeader/Carrier**
Model	**Name** , **CarrierID** , **Address** , **Contact**
Source	<xs:complexType name="etCarrier"> <xs:complexContent> <xs:restriction base="tCarrier"> <xs:sequence> <xs:element minOccurs="1" name="Name" type="xs:string"/> <xs:element minOccurs="1" name="CarrierID" type="tCarrierID"/> <xs:element minOccurs="1" name="Address" type="tAddress"/> <xs:element minOccurs="1" name="Contact" type="etContact"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.11 etBody

Diagram	
Type	restriction of **tBody**
Type hierarchy	**tBody** **etBody**
Used by	Element **tBL/Body**
Model	**Orders**

Source	`<xs:complexType name="etBody">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tBody">`
	`  <xs:sequence>`
	`  <xs:element maxOccurs="1" name="Orders" type="etOrders"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

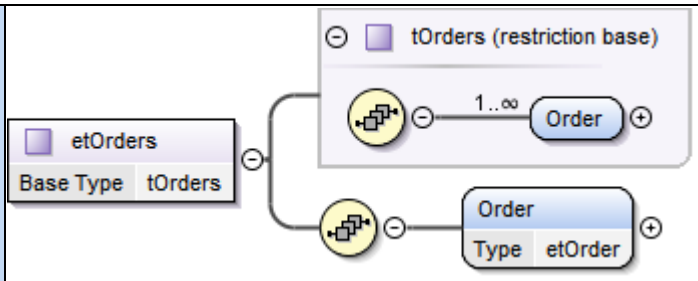
3.12 etOrder

Diagram	
Type	restriction of **tOrder**
Type hierarchy	**tOrder** **etOrder**
Used by	Element **etOrders/Order**
Model	**OrderInformation , Item+**

Source	`<xs:complexType name="etOrder">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tOrder">`
	`  <xs:sequence>`

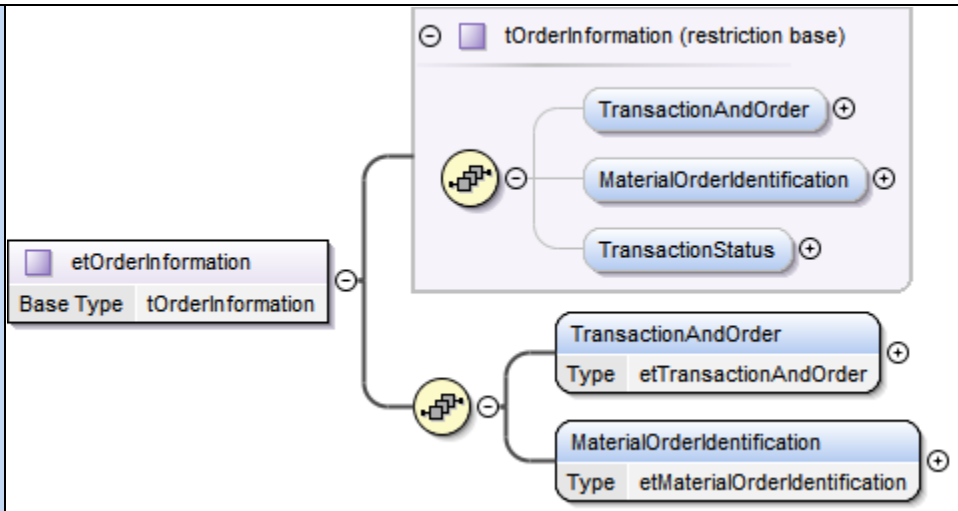
```
        <xs:element minOccurs="1" name="OrderInformation"
type="etOrderInformation"/>
        <xs:element maxOccurs="unbounded" name="Item"
type="etItem"/>
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

3.13 etOrders

Diagram	
Type	restriction of **tOrders**
Type hierarchy	**tOrders** **etOrders**
Used by	Element **etBody/Orders**
Model	**Order**

Source	`<xs:complexType name="etOrders">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tOrders">`
	`  <xs:sequence>`
	`  <xs:element maxOccurs="1" name="Order" type="etOrder"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

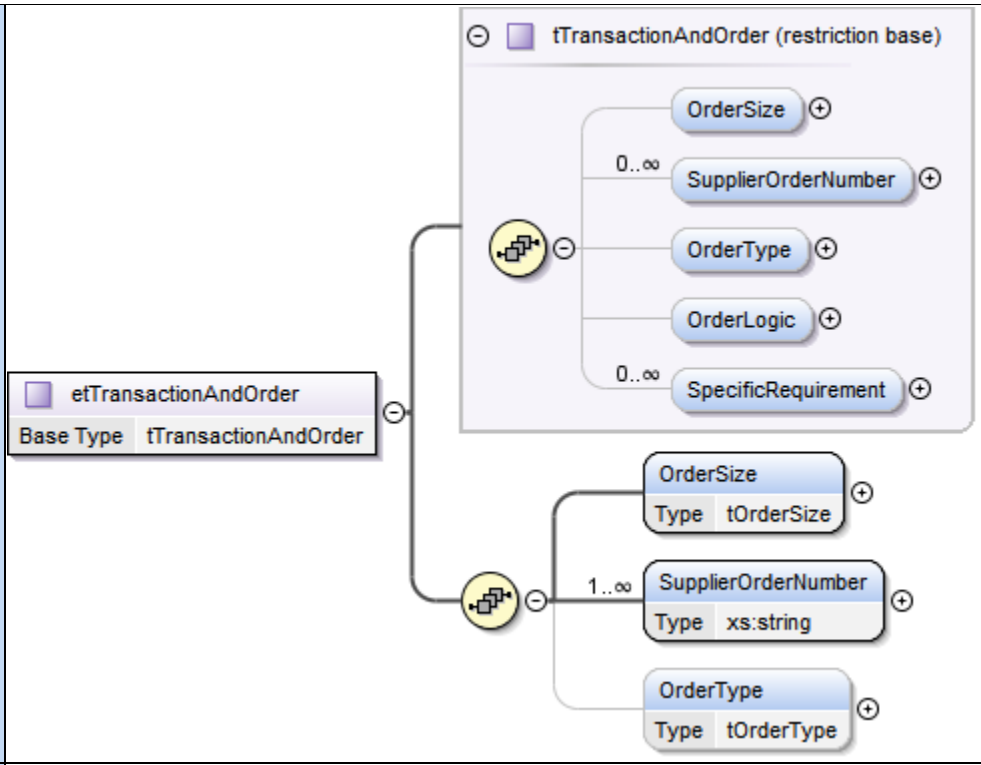
3.14 etOrderInformation

Diagram	
Type	restriction of **tOrderInformation**

Type hierarchy	**tOrderInformation** **etOrderInformation**
Used by	Element **etOrder/OrderInformation**
Model	**TransactionAndOrder , MaterialOrderIdentification**

Source	`<xs:complexType name="etOrderInformation">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tOrderInformation">`
	`  <xs:sequence>`
	`  <xs:element name="TransactionAndOrder" type="etTransactionAndOrder" minOccurs="1" maxOccurs="1"/>`
	`  <xs:element name="MaterialOrderIdentification" type="etMaterialOrderIdentification" minOccurs="1" maxOccurs="1"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

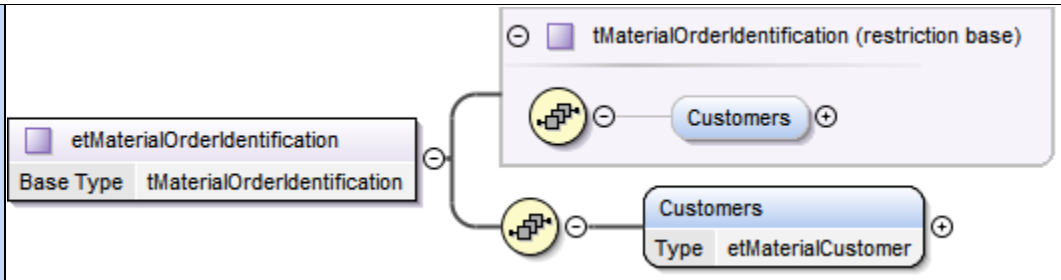
3.15 etTransactionAndOrder

Diagram	
Type	restriction of **tTransactionAndOrder**
Type hierarchy	**tTransactionAndOrder** **etTransactionAndOrder**
Used by	Element **etOrderInformation/TransactionAndOrder**
Model	**OrderSize , SupplierOrderNumber+ , OrderType{0,1}**

Source	`<xs:complexType name="etTransactionAndOrder">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tTransactionAndOrder">`
	`  <xs:sequence>`

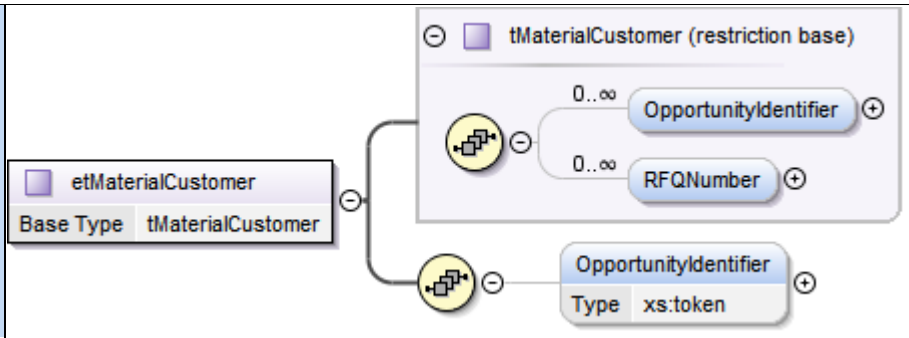
```
        <xs:element name="OrderSize" type="tOrderSize" minOccurs="1"
maxOccurs="1"/>
        <xs:element name="SupplierOrderNumber" type="xs:string"
minOccurs="1" maxOccurs="unbounded"/>
        <xs:element name="OrderType" type="tOrderType" minOccurs="0"
maxOccurs="1"/>
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

3.16 etMaterialOrderIdentification

Diagram	
Type	restriction of **tMaterialOrderIdentification**
Type hierarchy	**tMaterialOrderIdentification** **etMaterialOrderIdentification**
Used by	Element **etOrderInformation/MaterialOrderIdentification**
Model	**Customers**

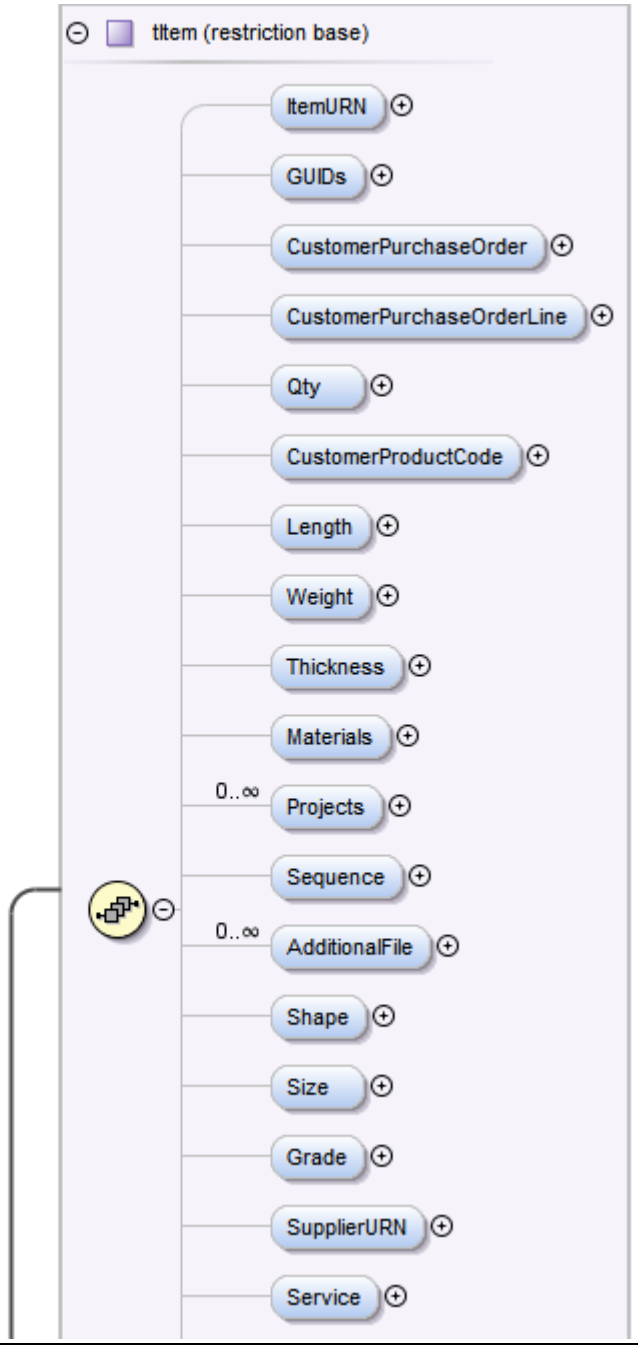
Source	`<xs:complexType name="etMaterialOrderIdentification">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tMaterialOrderIdentification">`
	`  <xs:sequence>`
	`  <xs:element name="Customers" type="etMaterialCustomer" minOccurs="1" maxOccurs="1"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

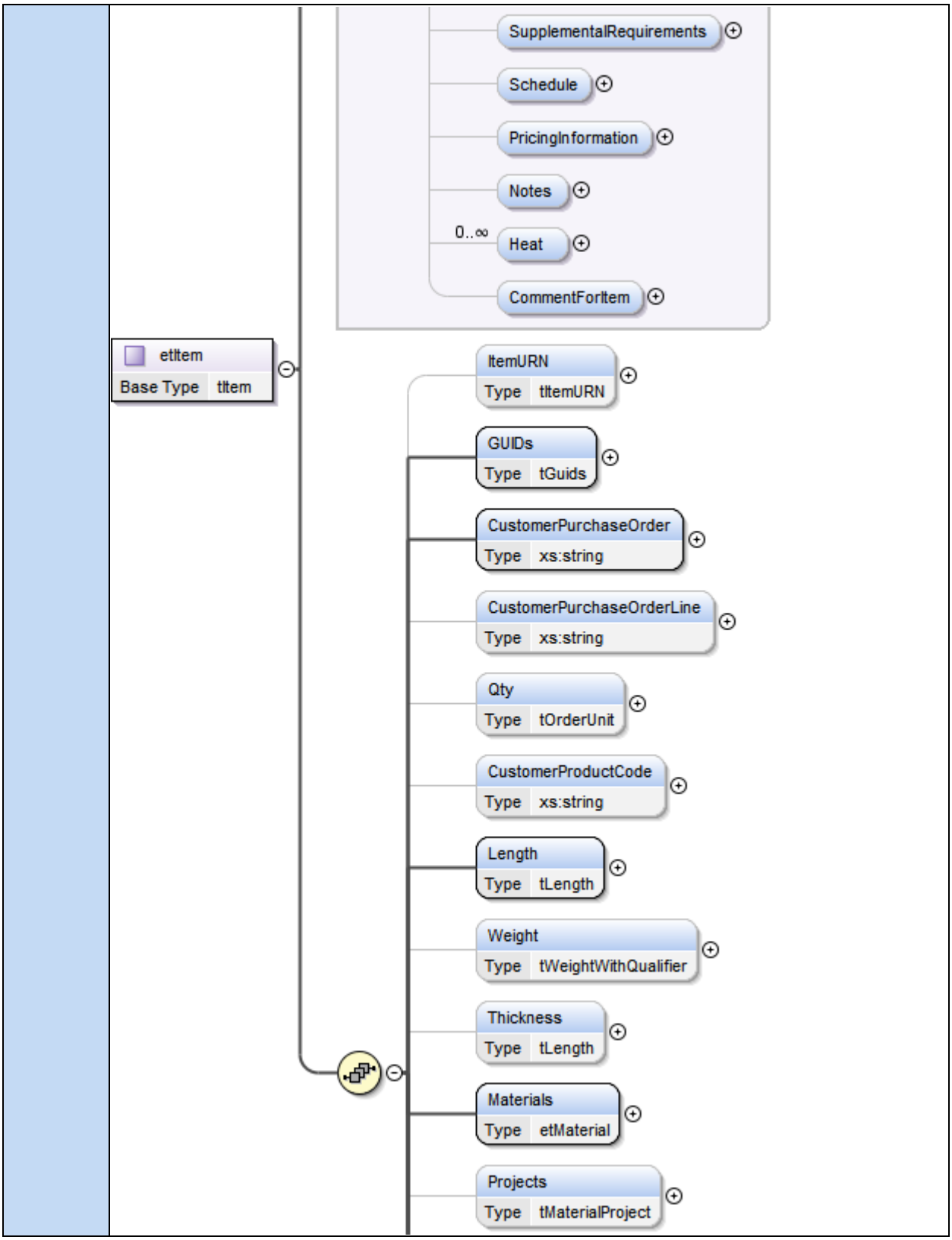
3.17 etMaterialCustomer

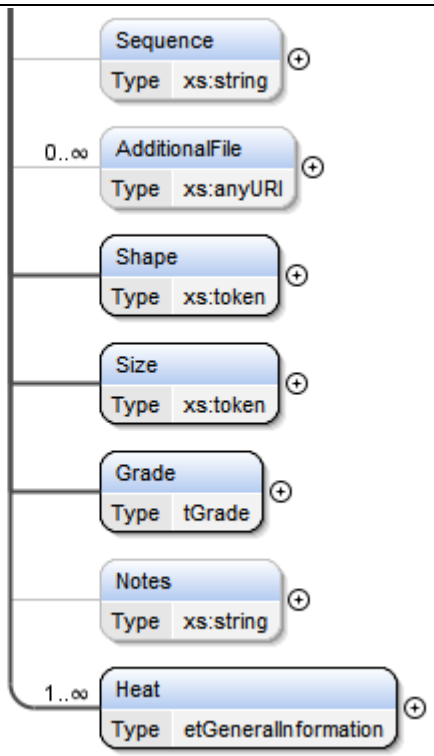
Diagram	
Type	restriction of **tMaterialCustomer**
Type hierarchy	**tMaterialCustomer** **etMaterialCustomer**

Used by	Element **etMaterialOrderIdentification/Customers**
Model	**OpportunityIdentifier{0,1}**
Source	<xs:complexType name="etMaterialCustomer"> <xs:complexContent> <xs:restriction base="tMaterialCustomer"> <xs:sequence> <xs:element name="OpportunityIdentifier" type="xs:token" minOccurs="0" maxOccurs="1"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.18 etItem

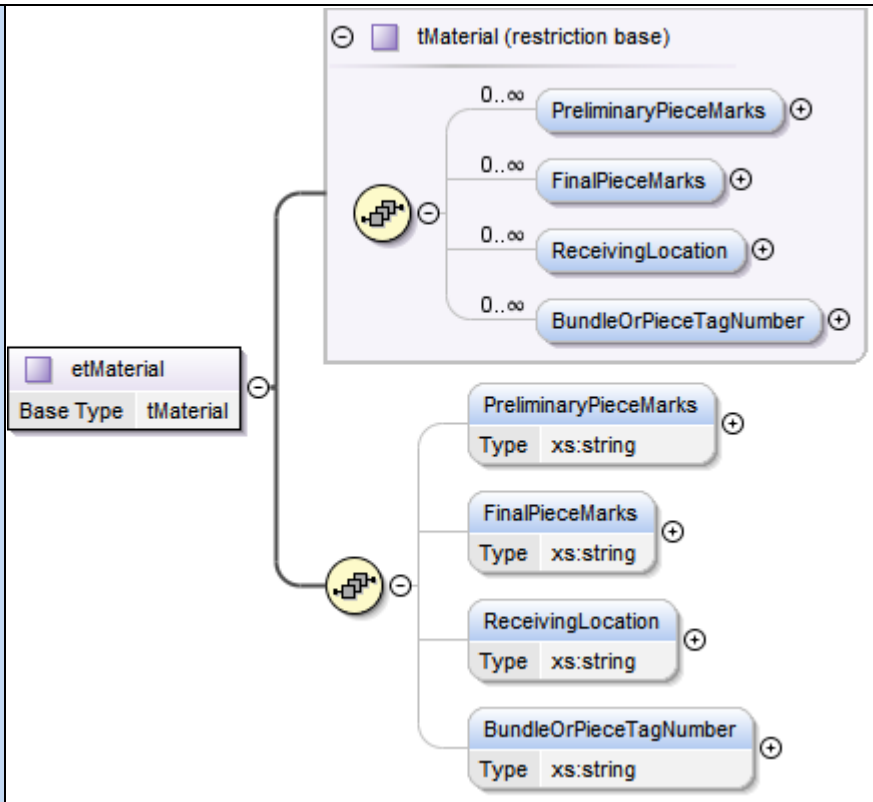
Diagram	


SupplementalRequirements
Schedule
PricingInformation
Notes
0..∞
Heat
CommentForItem
etItem
Base Type tItem
ItemURN
Type tItemURN
GUIDs
Type tGuids
CustomerPurchaseOrder
Type xs:string
CustomerPurchaseOrderLine
Type xs:string
Qty
Type tOrderUnit
CustomerProductCode
Type xs:string
Length
Type tLength
Weight
Type tWeightWithQualifier
Thickness
Type tLength
Materials
Type etMaterial
Projects
Type tMaterialProject

	
Type	restriction of **tItem**
Type hierarchy	**tItem** **etItem**
Used by	Element **etOrder/Item**
Model	**ItemURN{0,1}** , **GUIDs** , **CustomerPurchaseOrder** , **CustomerPurchaseOrderLine{0,1}** , **Qty{0,1}** , **CustomerProductCode{0,1}** , **Length** , **Weight{0,1}** , **Thickness{0,1}** , **Materials** , **Projects{0,1}** , **Sequence{0,1}** , **AdditionalFile*** , **Shape** , **Size** , **Grade** , **Notes{0,1}** , **Heat+**
Source	<xs:complexType name="etItem"> <xs:complexContent> <xs:restriction base="tItem"> <xs:sequence> <xs:element minOccurs="0" name="ItemURN" type="tItemURN"/> <xs:element name="GUIDs" type="tGuids" minOccurs="1" maxOccurs="1"/> <xs:element minOccurs="1" name="CustomerPurchaseOrder" type="xs:string"/> <xs:element minOccurs="0" name="CustomerPurchaseOrderLine" type="xs:string"/> <xs:element minOccurs="0" name="Qty" type="tOrderUnit"/> <xs:element minOccurs="0" name="CustomerProductCode" type="xs:string"/> <xs:element minOccurs="1" name="Length" type="tLength"/> <xs:element minOccurs="0" name="Weight" type="tWeightWithQualifier"/> <xs:element minOccurs="0" name="Thickness" type="tLength"/> <xs:element maxOccurs="1" minOccurs="1" name="Materials" type="etMaterial"/>

```
        <xs:element name="Projects" type="tMaterialProject"
minOccurs="0" maxOccurs="1"/>
        <xs:element minOccurs="0" maxOccurs="1" name="Sequence"
type="xs:string"/>
        <xs:element minOccurs="0" maxOccurs="unbounded"
name="AdditionalFile" type="xs:anyURI"/>
        <xs:element name="Shape" type="xs:token" minOccurs="1"/>
        <xs:element name="Size" type="xs:token" minOccurs="1"/>
        <xs:element name="Grade" type="tGrade" minOccurs="1"/>
        <xs:element minOccurs="0" name="Notes" type="xs:string"/>
        <xs:element minOccurs="1" maxOccurs="unbounded" name="Heat"
type="etGeneralInformation"/>
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

3.19 etMaterial

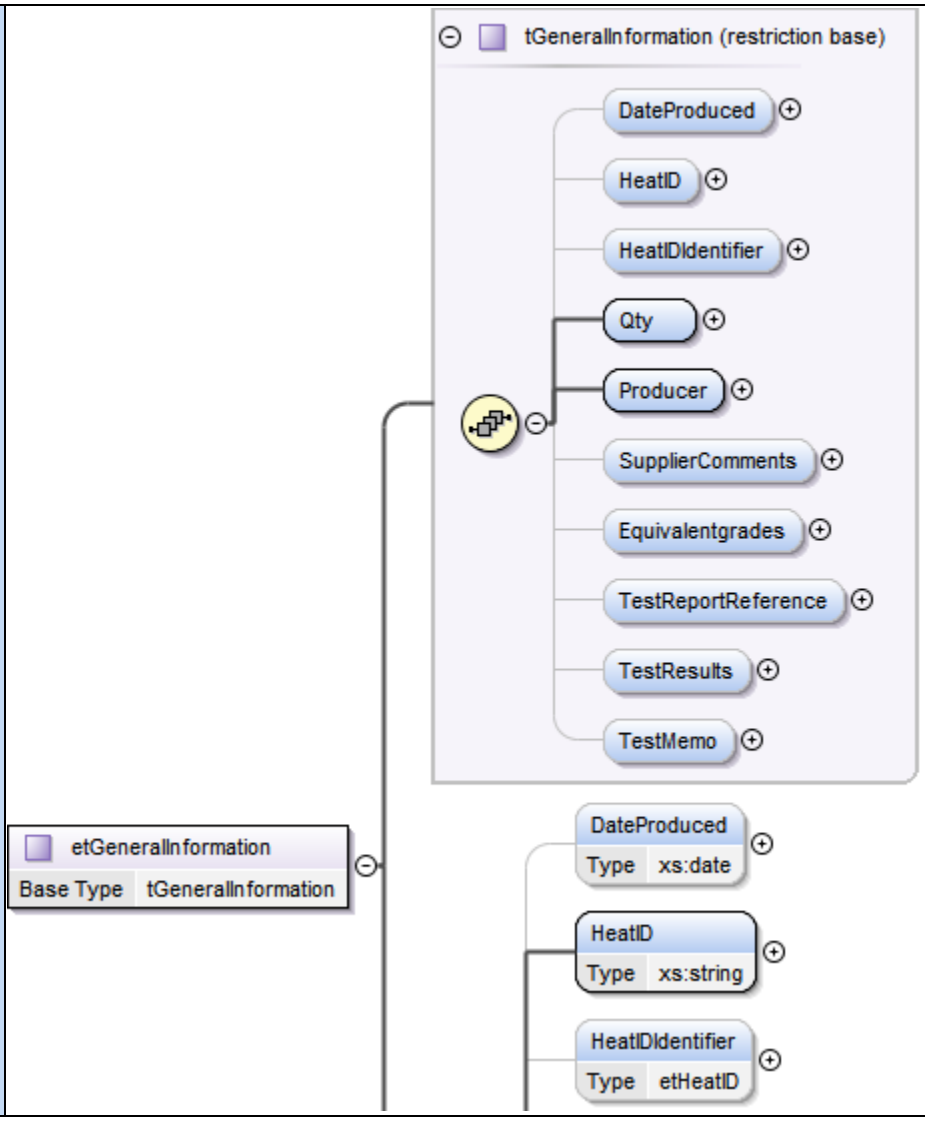
Diagram	
Type	restriction of **tMaterial**
Type hierarchy	**tMaterial** **etMaterial**
Used by	Element **etItem/Materials**
Model	**PreliminaryPieceMarks{0,1}** , **FinalPieceMarks{0,1}** , **ReceivingLocation{0,1}** , **BundleOrPieceTagNumber{0,1}**

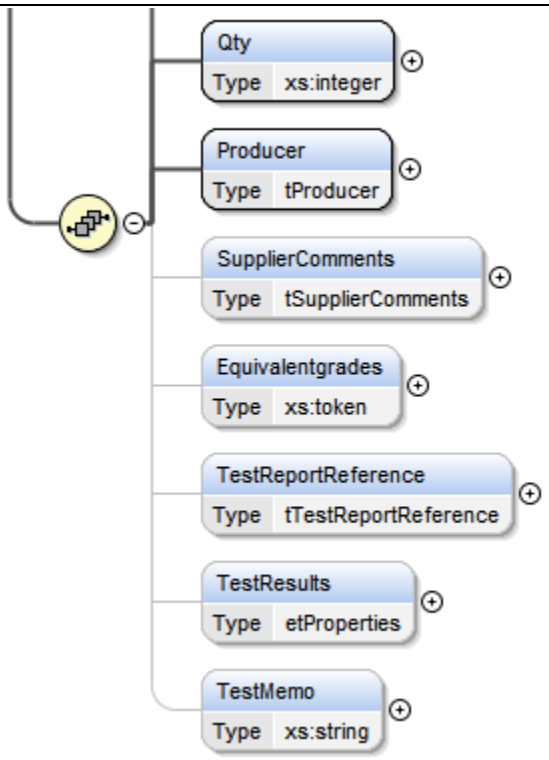
Source	`<xs:complexType name="etMaterial">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tMaterial">`

```
      <xs:sequence>
        <xs:element name="PreliminaryPieceMarks" type="xs:string"
minOccurs="0" maxOccurs="1"/>
        <xs:element name="FinalPieceMarks" type="xs:string"
minOccurs="0" maxOccurs="1"/>
        <xs:element name="ReceivingLocation" type="xs:string"
minOccurs="0" maxOccurs="1"/>
        <xs:element name="BundleOrPieceTagNumber" type="xs:string"
minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

3.20 etGeneralInformation

Diagram

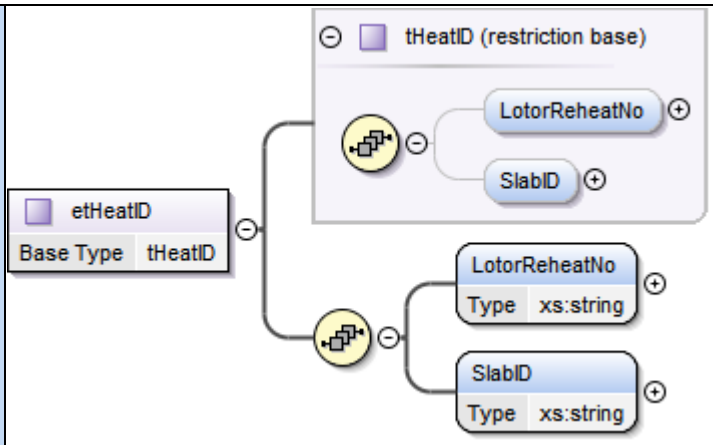


	
Type	restriction of **tGeneralInformation**
Type hierarchy	**tGeneralInformation** **etGeneralInformation**
Used by	Element **etItem/Heat**
Model	**DateProduced{0,1}** , **HeatID** , **HeatIDIdentifier{0,1}** , **Qty** , **Producer** , **SupplierComments{0,1}** , **Equivalentgrades{0,1}** , **TestReportReference{0,1}** , **TestResults{0,1}** , **TestMemo{0,1}**

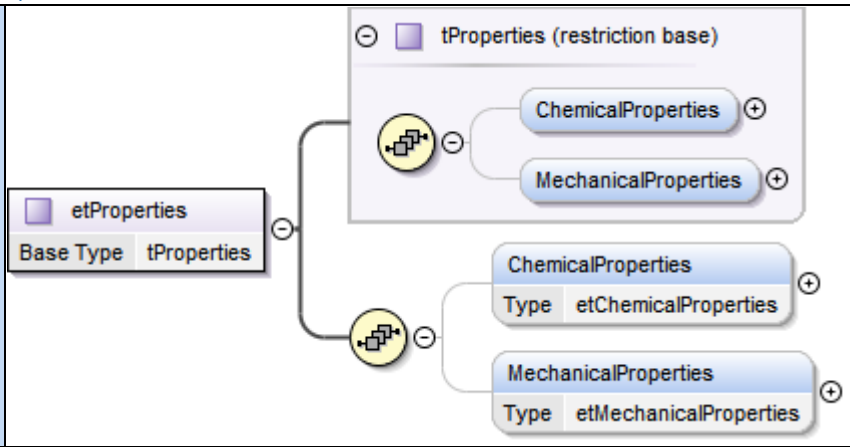
Source	`<xs:complexType name="etGeneralInformation">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tGeneralInformation">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" name="DateProduced" type="xs:date"/>`
	`  <xs:element minOccurs="1" name="HeatID" type="xs:string"/>`
	`  <xs:element minOccurs="0" name="HeatIDIdentifier" type="etHeatID"/>`
	`  <xs:element name="Qty" type="xs:integer"/>`
	`  <xs:element name="Producer" type="tProducer"/>`
	`  <xs:element minOccurs="0" name="SupplierComments" type="tSupplierComments"/>`
	`  <xs:element minOccurs="0" name="Equivalentgrades" type="xs:token"/>`
	`  <xs:element minOccurs="0" name="TestReportReference" type="tTestReportReference"/>`
	`  <xs:element minOccurs="0" name="TestResults" type="etProperties"/>`
	`  <xs:element minOccurs="0" name="TestMemo" type="xs:string"/>`
	`  </xs:sequence>`

	</xs:restriction> </xs:complexContent> </xs:complexType>

3.21 etHeatID

Diagram	
Type	restriction of **tHeatID**
Type hierarchy	**tHeatID** **etHeatID**
Used by	Element **etGeneralInformation/HeatIDIdentifier**
Model	**LotorReheatNo** , **SlabID**
Source	<xs:complexType name="etHeatID"> <xs:complexContent> <xs:restriction base="tHeatID"> <xs:sequence> <xs:element minOccurs="1" name="LotorReheatNo" type="xs:string"/> <xs:element minOccurs="1" name="SlabID" type="xs:string"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

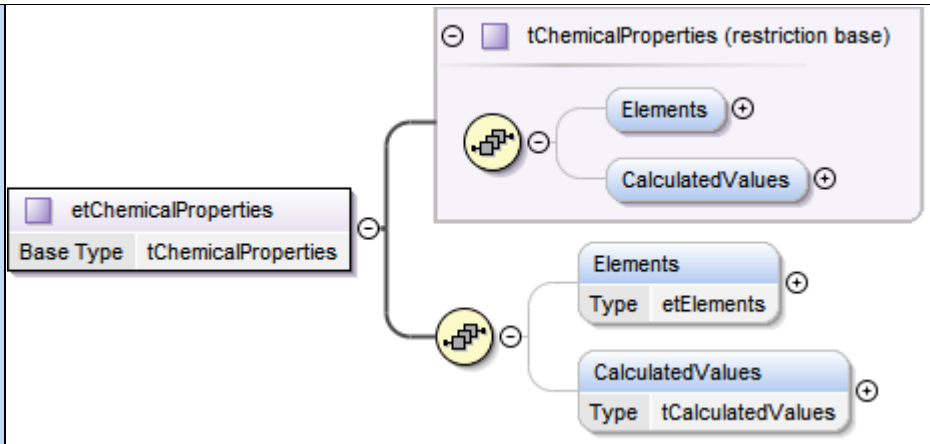
3.22 etProperties

Diagram	
Type	restriction of **tProperties**

Type hierarchy	**tProperties** **etProperties**
Used by	Element **etGeneralInformation/TestResults**
Model	**ChemicalProperties{0,1}** , **MechanicalProperties{0,1}**

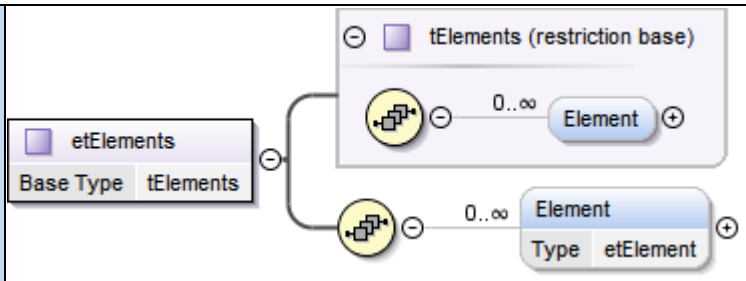
Source	`<xs:complexType name="etProperties">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tProperties">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" name="ChemicalProperties" type="etChemicalProperties"/>`
	`  <xs:element minOccurs="0" name="MechanicalProperties" type="etMechanicalProperties"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

3.23 etChemicalProperties

Diagram	
Type	restriction of **tChemicalProperties**
Type hierarchy	**tChemicalProperties** **etChemicalProperties**
Used by	Element **etProperties/ChemicalProperties**
Model	**Elements{0,1}** , **CalculatedValues{0,1}**

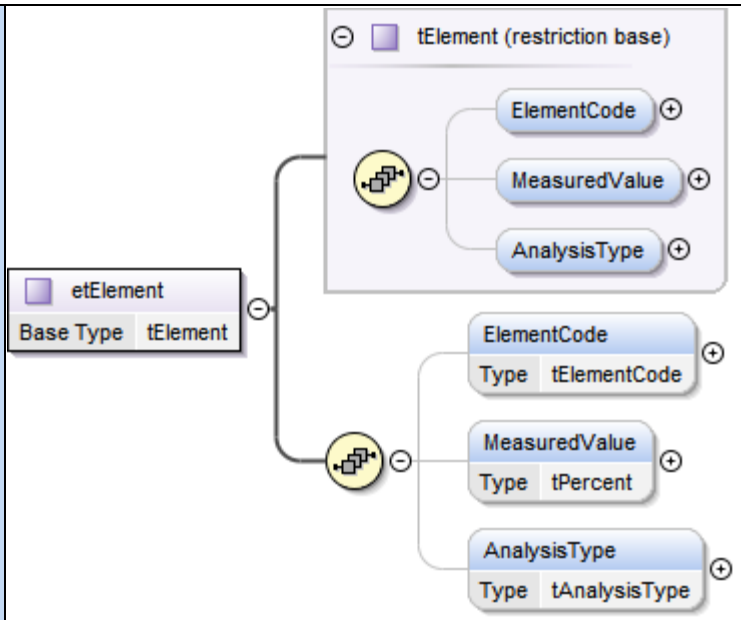
Source	`<xs:complexType name="etChemicalProperties">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tChemicalProperties">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" name="Elements" type="etElements"/>`
	`  <xs:element minOccurs="0" name="CalculatedValues" type="tCalculatedValues"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

3.24 etElements

Diagram	
Type	restriction of **tElements**
Type hierarchy	**tElements** **etElements**
Used by	Element **etChemicalProperties/Elements**
Model	**Element***

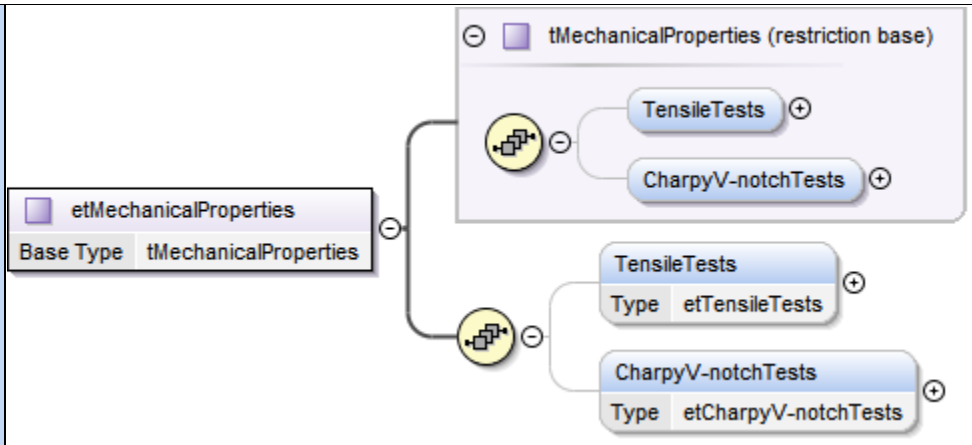
Source	`<xs:complexType name="etElements">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tElements">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" maxOccurs="unbounded" name="Element" type="etElement"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

3.25 etElement

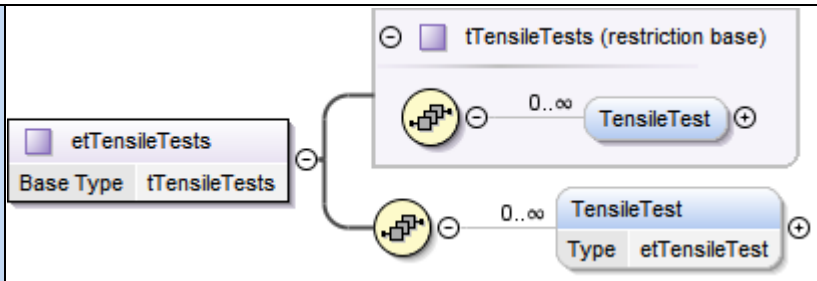
Diagram	
Type	restriction of **tElement**
Type hierarchy	**tElement** **etElement**
Used by	Element **etElements/Element**

Model	**ElementCode{0,1} , MeasuredValue{0,1} , AnalysisType{0,1}**
Source	<xs:complexType name="etElement"> <xs:complexContent> <xs:restriction base="tElement"> <xs:sequence> <xs:element minOccurs="0" name="ElementCode" type="tElementCode"/> <xs:element minOccurs="0" name="MeasuredValue" type="tPercent"/> <xs:element minOccurs="0" name="AnalysisType" type="tAnalysisType"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.26 etMechanicalProperties

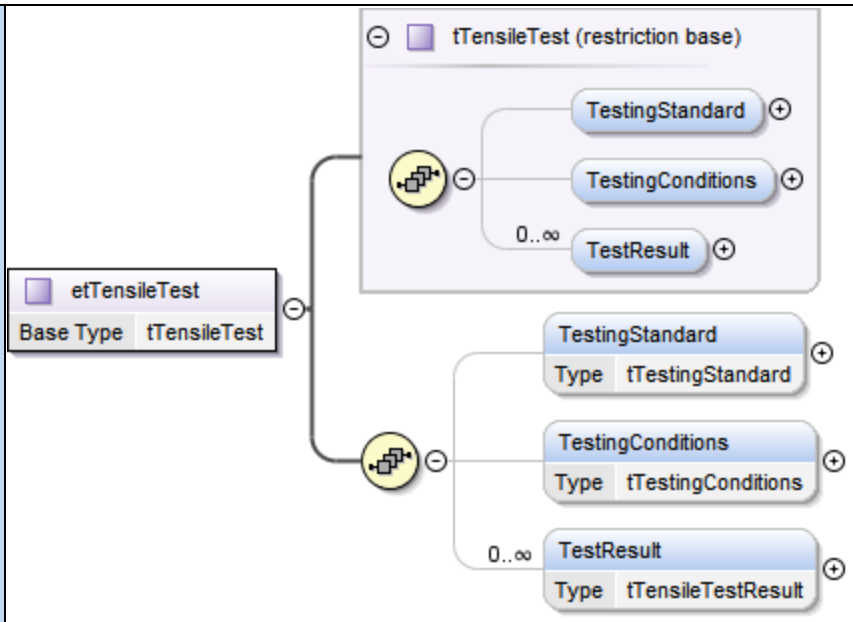
Diagram	
Type	restriction of **tMechanicalProperties**
Type hierarchy	**tMechanicalProperties** **etMechanicalProperties**
Used by	Element **etProperties/MechanicalProperties**
Model	**TensileTests{0,1} , CharpyV-notchTests{0,1}**
Source	<xs:complexType name="etMechanicalProperties"> <xs:complexContent> <xs:restriction base="tMechanicalProperties"> <xs:sequence> <xs:element minOccurs="0" name="TensileTests" type="etTensileTests"/> <xs:element minOccurs="0" name="CharpyV-notchTests" type="etCharpyV-notchTests"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.27 etTensileTests

Diagram	
Type	restriction of **tTensileTests**
Type hierarchy	**tTensileTests** **etTensileTests**
Used by	Element **etMechanicalProperties/TensileTests**
Model	**TensileTest***

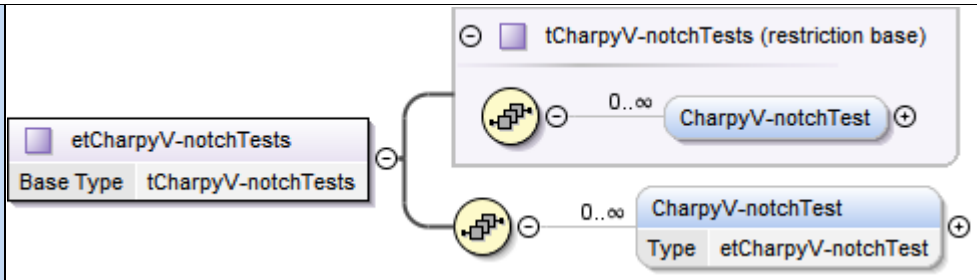
Source	`<xs:complexType name="etTensileTests">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tTensileTests">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" maxOccurs="unbounded" name="TensileTest" type="etTensileTest"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

3.28 etTensileTest

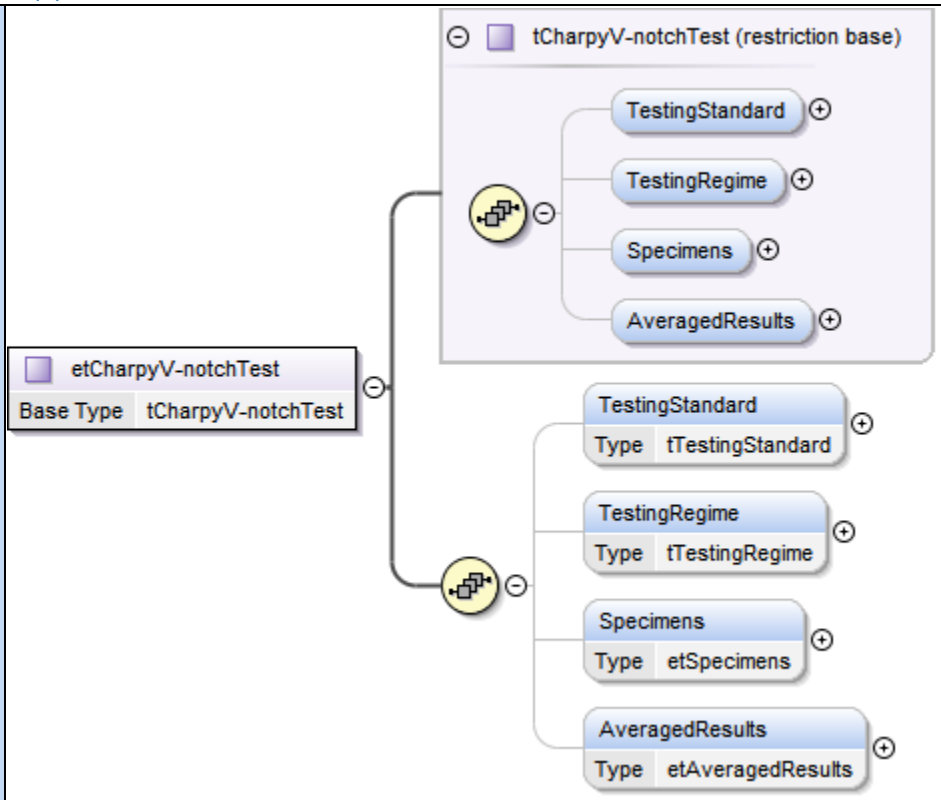
Diagram	
Type	restriction of **tTensileTest**
Type hierarchy	**tTensileTest** **etTensileTest**
Used by	Element **etTensileTests/TensileTest**

Model	**TestingStandard{0,1} , TestingConditions{0,1} , TestResult***
Source	<xs:complexType name="etTensileTest"> <xs:complexContent> <xs:restriction base="tTensileTest"> <xs:sequence> <xs:element minOccurs="0" name="TestingStandard" type="tTestingStandard"/> <xs:element minOccurs="0" name="TestingConditions" type="tTestingConditions"/> <xs:element minOccurs="0" maxOccurs="unbounded" name="TestResult" type="tTensileTestResult"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.29 etCharpyV-notchTests

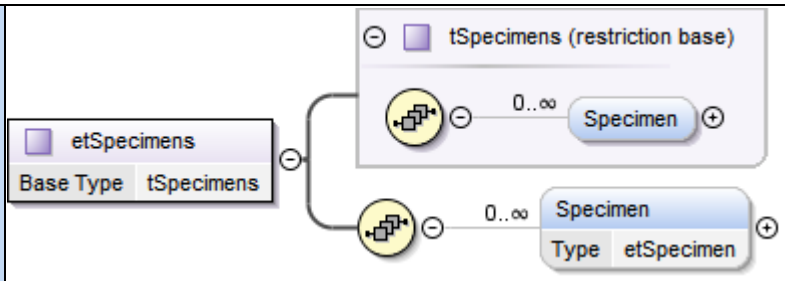
Diagram	
Type	restriction of **tCharpyV-notchTests**
Type hierarchy	**tCharpyV-notchTests** **etCharpyV-notchTests**
Used by	Element **etMechanicalProperties/CharpyV-notchTests**
Model	**CharpyV-notchTest***
Source	<xs:complexType name="etCharpyV-notchTests"> <xs:complexContent> <xs:restriction base="tCharpyV-notchTests"> <xs:sequence> <xs:element minOccurs="0" maxOccurs="unbounded" name="CharpyV-notchTest" type="etCharpyV-notchTest"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.30 etCharpyV-notchTest

Diagram	
Type	restriction of **tCharpyV-notchTest**
Type hierarchy	**tCharpyV-notchTest** **etCharpyV-notchTest**
Used by	Element **etCharpyV-notchTests/CharpyV-notchTest**
Model	**TestingStandard{0,1}** , **TestingRegime{0,1}** , **Specimens{0,1}** , **AveragedResults{0,1}**

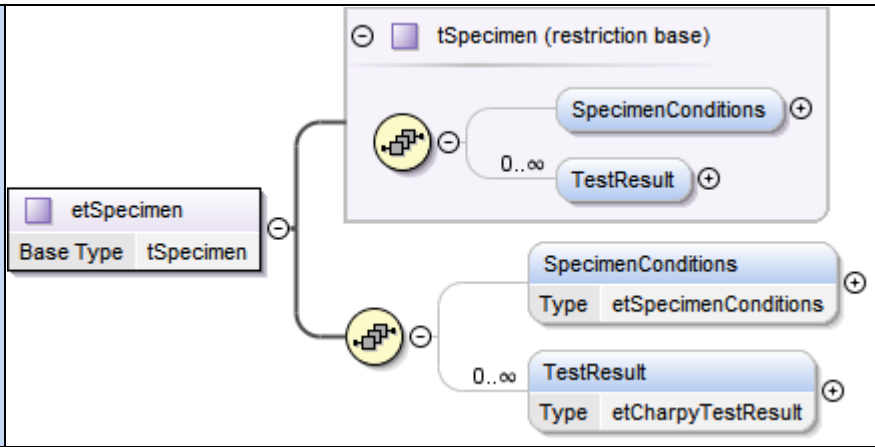
Source	
	`<xs:complexType name="etCharpyV-notchTest">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tCharpyV-notchTest">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" name="TestingStandard" type="tTestingStandard"/>`
	`  <xs:element minOccurs="0" name="TestingRegime" type="tTestingRegime"/>`
	`  <xs:element minOccurs="0" name="Specimens" type="etSpecimens"/>`
	`  <xs:element minOccurs="0" name="AveragedResults" type="etAveragedResults"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

3.31 etSpecimens

Diagram	
Type	restriction of **tSpecimens**
Type hierarchy	**tSpecimens** **etSpecimens**
Used by	Element **etCharpyV-notchTest/Specimens**
Model	**Specimen***

Source	`<xs:complexType name="etSpecimens">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tSpecimens">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" maxOccurs="unbounded" name="Specimen" type="etSpecimen"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

3.32 etSpecimen

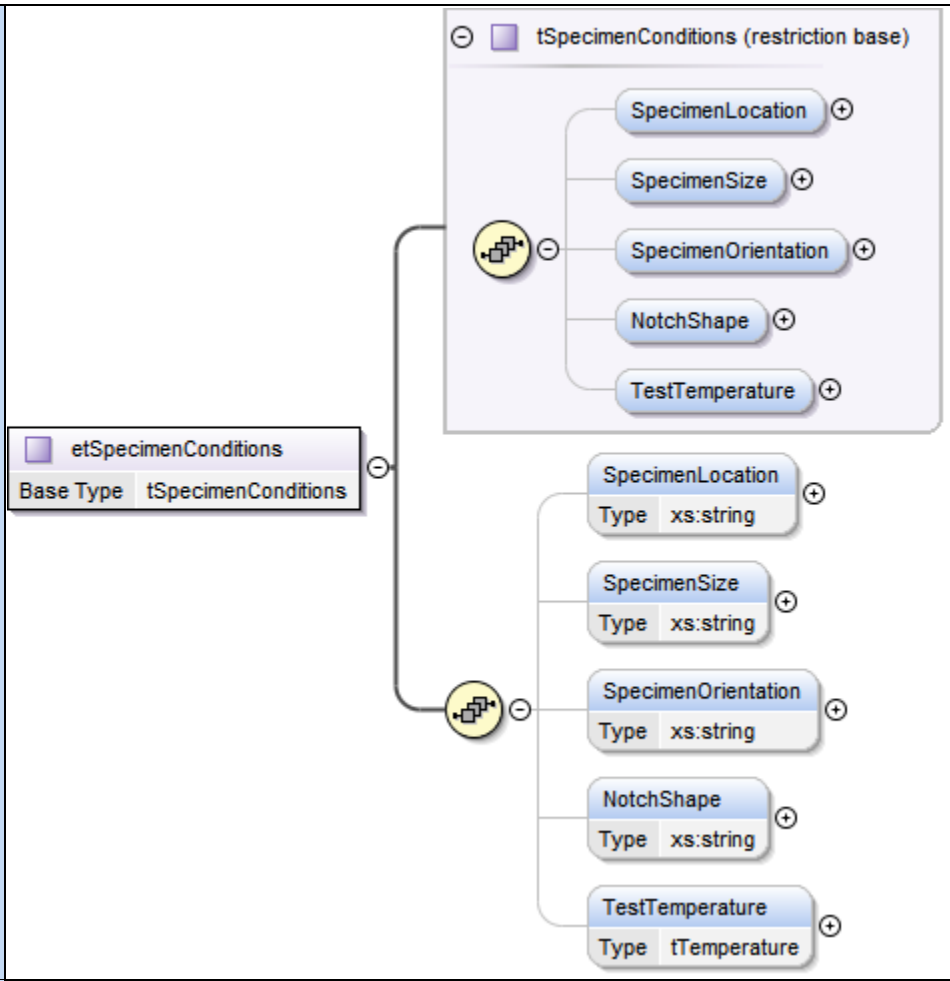
Diagram	
Type	restriction of **tSpecimen**
Type hierarchy	**tSpecimen** **etSpecimen**
Used by	Element **etSpecimens/Specimen**
Model	**SpecimenConditions{0,1}** , **TestResult***

Source	`<xs:complexType name="etSpecimen">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tSpecimen">`
	`  <xs:sequence>`

```
        <xs:element minOccurs="0" name="SpecimenConditions"
type="etSpecimenConditions"/>
        <xs:element minOccurs="0" maxOccurs="unbounded"
name="TestResult" type="etCharpyTestResult"/>
      </xs:sequence>
    </xs:restriction>
  </xs:complexContent>
</xs:complexType>
```

3.33 etSpecimenConditions

Diagram

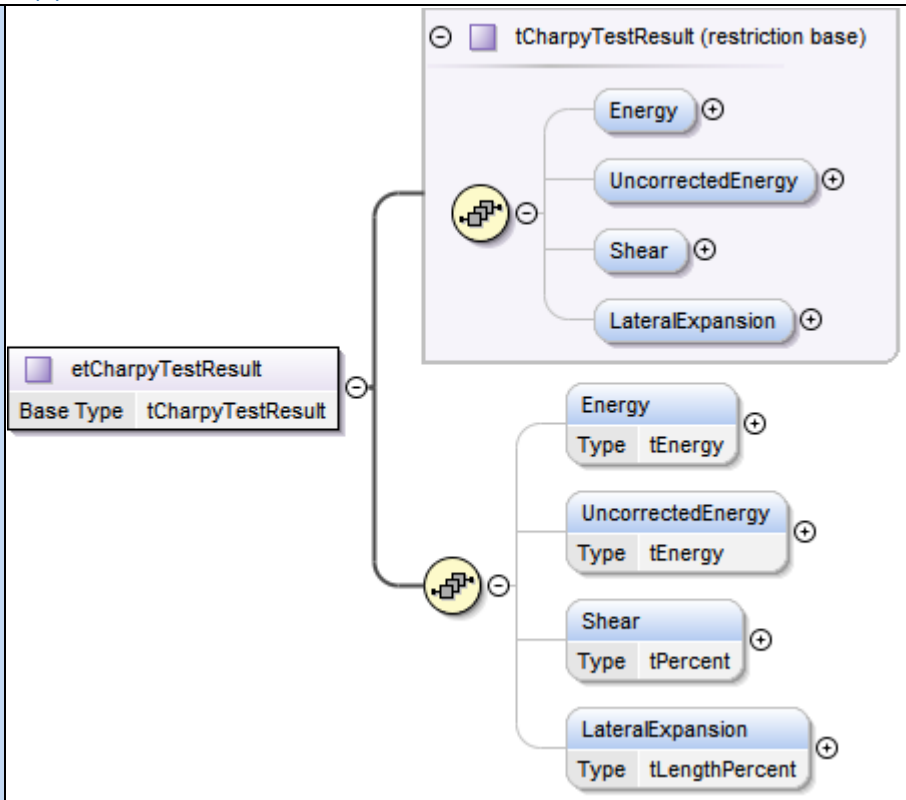


Type	restriction of **tSpecimenConditions**
Type hierarchy	**tSpecimenConditions** **etSpecimenConditions**
Used by	Element **etSpecimen/SpecimenConditions**
Model	**SpecimenLocation{0,1}** , **SpecimenSize{0,1}** , **SpecimenOrientation{0,1}** , **NotchShape{0,1}** , **TestTemperature{0,1}**

Source	`<xs:complexType name="etSpecimenConditions">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tSpecimenConditions">`
	`  <xs:sequence>`
	`  <xs:element minOccurs="0" name="SpecimenLocation"`
	`type="xs:string"/>`

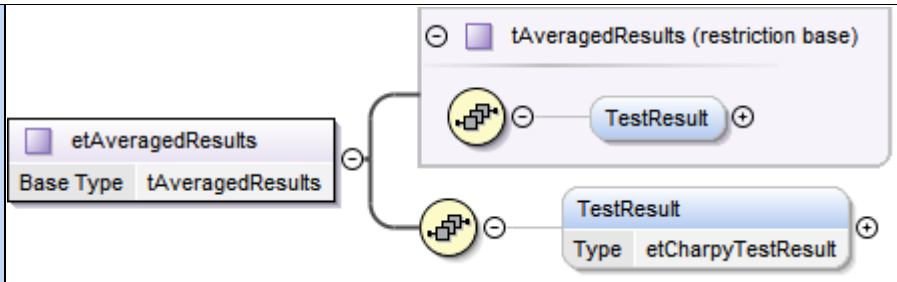
	<xs:element minOccurs="0" name="SpecimenSize" type="xs:string"/> <xs:element minOccurs="0" name="SpecimenOrientation" type="xs:string"/> <xs:element minOccurs="0" name="NotchShape" type="xs:string"/> <xs:element minOccurs="0" name="TestTemperature" type="tTemperature"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.34 etCharpyTestResult

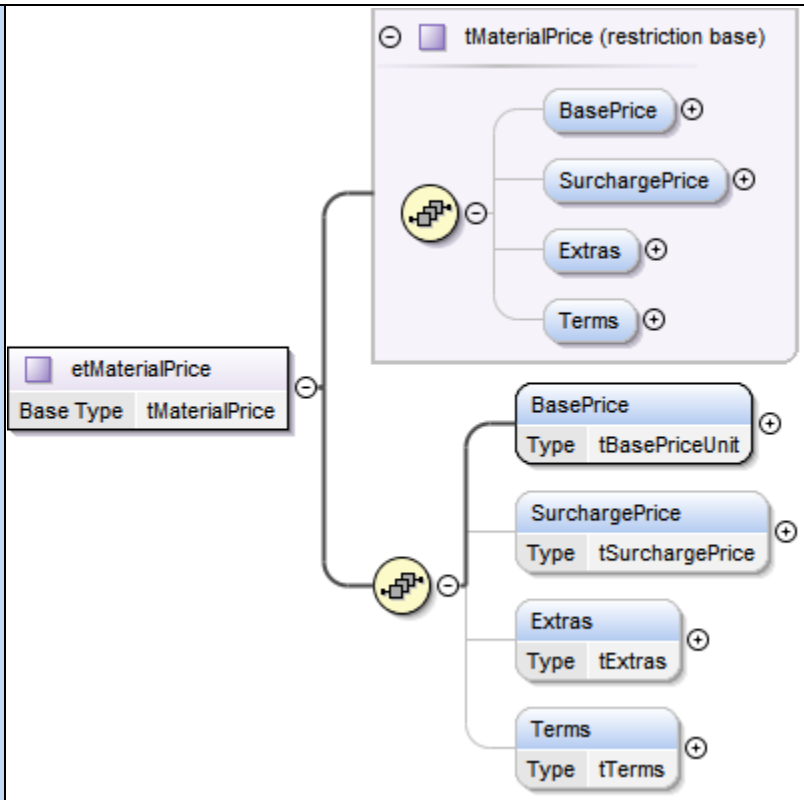
Diagram	
Type	restriction of **tCharpyTestResult**
Type hierarchy	**tCharpyTestResult** **etCharpyTestResult**
Used by	Elements **etAveragedResults/TestResult**, **etSpecimen/TestResult**
Model	**Energy{0,1}** , **UncorrectedEnergy{0,1}** , **Shear{0,1}** , **LateralExpansion{0,1}**
Source	<xs:complexType name="etCharpyTestResult"> <xs:complexContent> <xs:restriction base="tCharpyTestResult"> <xs:sequence> <xs:element minOccurs="0" name="Energy" type="tEnergy"/> <xs:element minOccurs="0" name="UncorrectedEnergy" type="tEnergy"/> <xs:element minOccurs="0" name="Shear" type="tPercent"/>

	<xs:element minOccurs="0" name="LateralExpansion" type="tLengthPercent"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.35 etAveragedResults

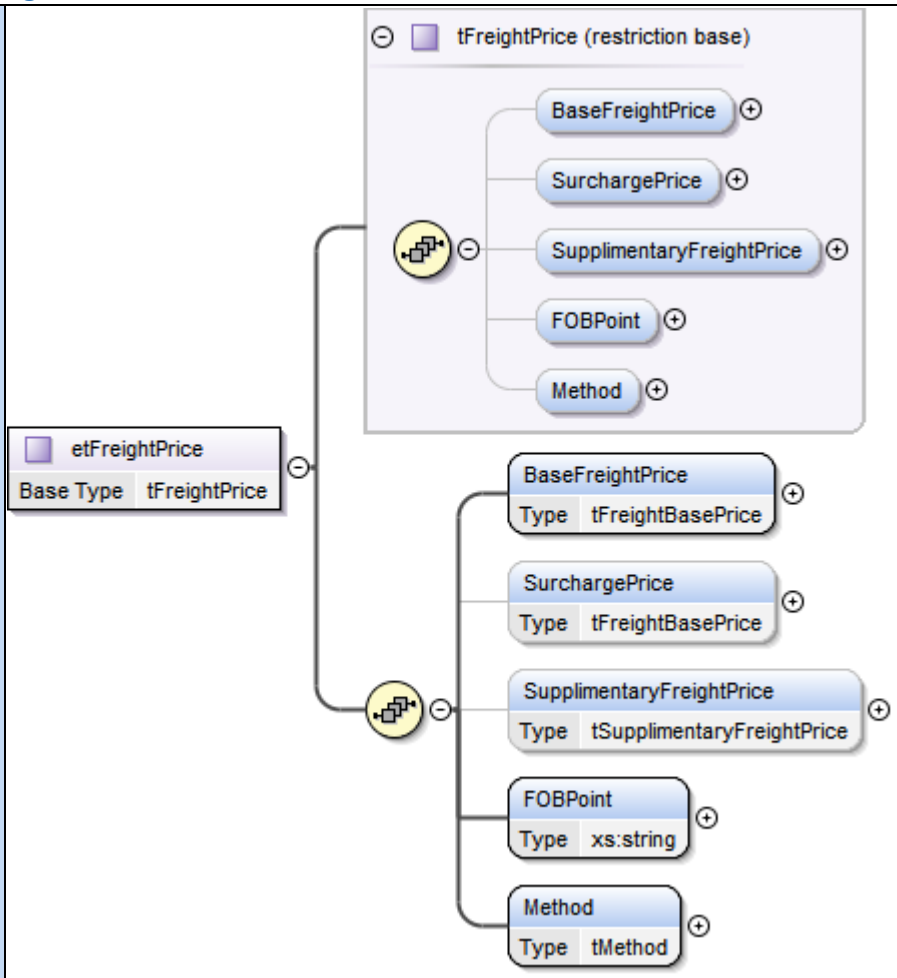
Diagram	
Type	restriction of **tAveragedResults**
Type hierarchy	**tAveragedResults** **etAveragedResults**
Used by	Element **etCharpyV-notchTest/AveragedResults**
Model	**TestResult{0,1}**
Source	<xs:complexType name="etAveragedResults"> <xs:complexContent> <xs:restriction base="tAveragedResults"> <xs:sequence> <xs:element minOccurs="0" name="TestResult" type="etCharpyTestResult"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.36 etMaterialPrice

Diagram	
Type	restriction of **tMaterialPrice**
Type hierarchy	**tMaterialPrice** **etMaterialPrice**
Model	**BasePrice** , **SurchargePrice{0,1}** , **Extras{0,1}** , **Terms{0,1}**

Source	`<xs:complexType name="etMaterialPrice">`
	`  <xs:complexContent>`
	`  <xs:restriction base="tMaterialPrice">`
	`  <xs:sequence>`
	`  <xs:element name="BasePrice" type="tBasePriceUnit" minOccurs="1" maxOccurs="1"/>`
	`  <xs:element name="SurchargePrice" type="tSurchargePrice" minOccurs="0" maxOccurs="1"/>`
	`  <xs:element name="Extras" type="tExtras" minOccurs="0" maxOccurs="1"/>`
	`  <xs:element name="Terms" type="tTerms" minOccurs="0" maxOccurs="1"/>`
	`  </xs:sequence>`
	`  </xs:restriction>`
	`  </xs:complexContent>`
	`</xs:complexType>`

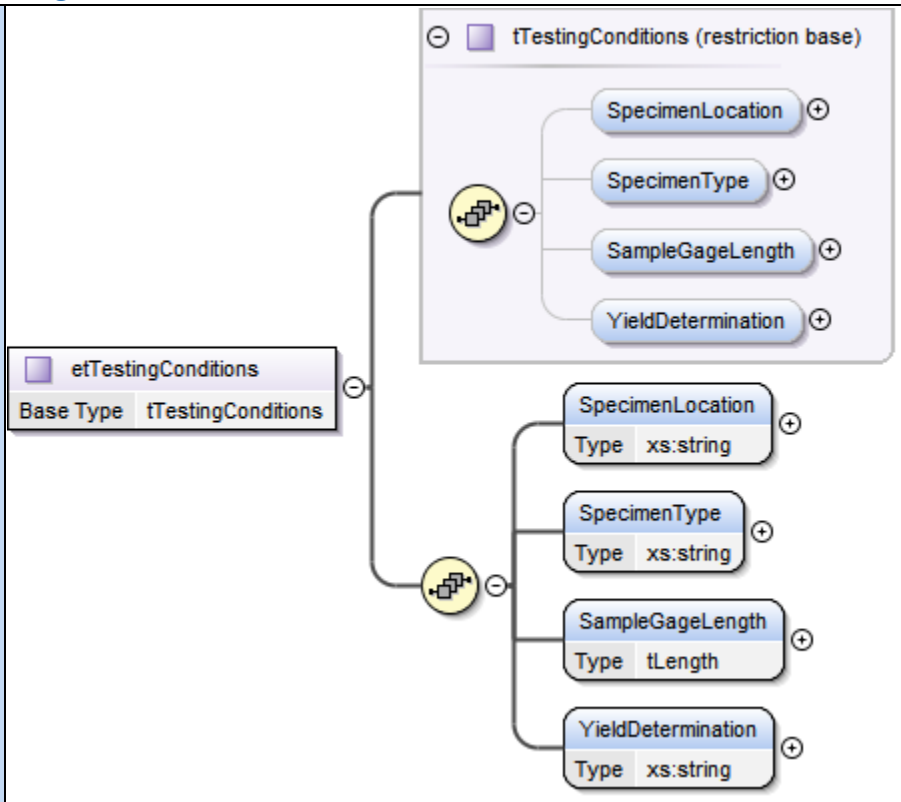
3.37 etFreightPrice

Diagram	
Type	restriction of **tFreightPrice**
Type hierarchy	**tFreightPrice** **etFreightPrice**
Model	**BaseFreightPrice** , **SurchargePrice{0,1}** , **SupplimentaryFreightPrice{0,1}** , **FOBPoint** , **Method**

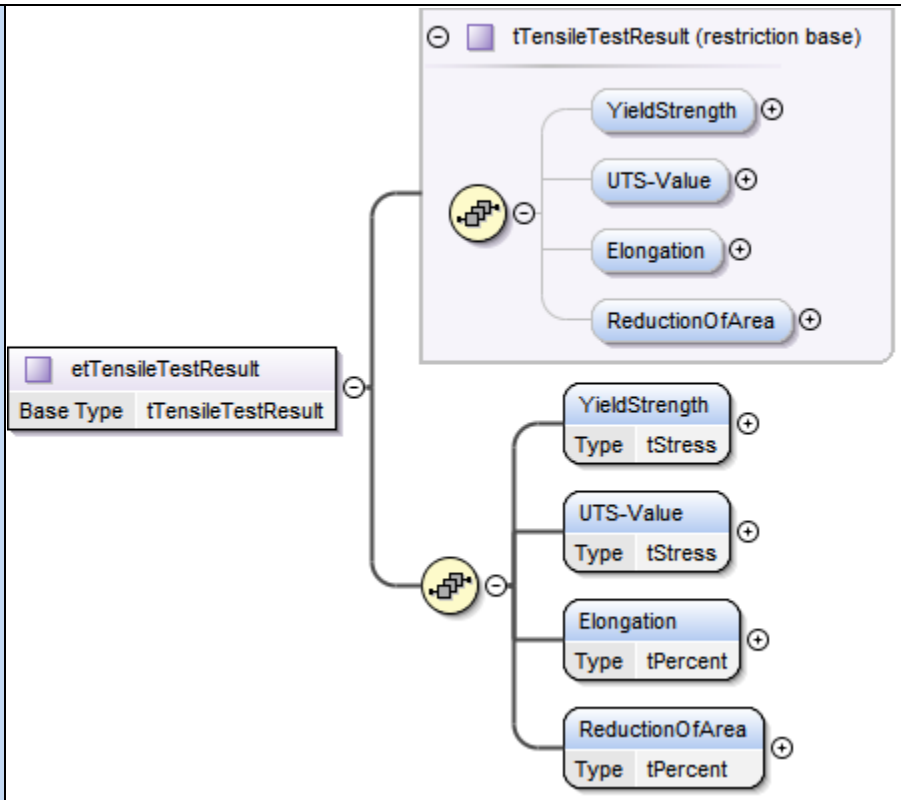
Source	`<xs:complexType name="etFreightPrice">`
	`<xs:complexContent>`
	`<xs:restriction base="tFreightPrice">`
	`<xs:sequence>`
	`<xs:element name="BaseFreightPrice" type="tFreightBasePrice" minOccurs="1" maxOccurs="1"/>`
	`<xs:element name="SurchargePrice" type="tFreightBasePrice" minOccurs="0" maxOccurs="1"/>`
	`<xs:element name="SupplimentaryFreightPrice" type="tSupplimentaryFreightPrice" minOccurs="0" maxOccurs="1"/>`
	`<xs:element name="FOBPoint" type="xs:string" minOccurs="1" maxOccurs="1"/>`
	`<xs:element name="Method" type="tMethod" minOccurs="1" maxOccurs="1"/>`
	`</xs:sequence>`

	</xs:restriction> </xs:complexContent> </xs:complexType>

3.38 etTestingConditions

Diagram	
Type	restriction of **tTestingConditions**
Type hierarchy	**tTestingConditions** **etTestingConditions**
Model	**SpecimenLocation** , **SpecimenType** , **SampleGageLength** , **YieldDetermination**
Source	<xs:complexType name="etTestingConditions"> <xs:complexContent> <xs:restriction base="tTestingConditions"> <xs:sequence> <xs:element minOccurs="1" name="SpecimenLocation" type="xs:string"/> <xs:element minOccurs="1" name="SpecimenType" type="xs:string"/> <xs:element minOccurs="1" name="SampleGageLength" type="tLength"/> <xs:element minOccurs="1" name="YieldDetermination" type="xs:string"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>

3.39 etTensileTestResult

Diagram	
Type	restriction of **tTensileTestResult**
Type hierarchy	**tTensileTestResult** **etTensileTestResult**
Model	**YieldStrength** , **UTS-Value** , **Elongation** , **ReductionOfArea**
Source	<xs:complexType name="etTensileTestResult"> <xs:complexContent> <xs:restriction base="tTensileTestResult"> <xs:sequence> <xs:element minOccurs="1" name="YieldStrength" type="tStress"/> <xs:element minOccurs="1" name="UTS-Value" type="tStress"/> <xs:element minOccurs="1" name="Elongation" type="tPercent"/> <xs:element minOccurs="1" name="ReductionOfArea" type="tPercent"/> </xs:sequence> </xs:restriction> </xs:complexContent> </xs:complexType>