Circular Economy Ontology Network (CEON) - Electronics Module

Metadata

IRI

http://w3id.org/CEON/demo/electronics/

Title

Circular Economy Ontology Network (CEON) - Electronics Module

Publisher

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Version Iri

http://w3id.org/CEON/demo/electronics/0.2/

Version Info

0.2

Prior Version

0.1

Preferred Namespace Prefix

ceon-demo-electronics

Preferred Namespace Uri

http://w3id.org/CEON/demo/electronics/

Description

The Electronics module of CEON (Circular Economy Ontology Network).

Classes

Derived Unit ^c	
IRI	http://qudt.org/schema/qudt/DerivedUnit
Is Defined By	http://qudt.org/2.1/schema/qudt
Description	A DerivedUnit is a type specification for units that are derived from other units.
Sub Class Of	http://qudt.org/schema/qudt/Unit
Named Individuals	pascal second ⁿⁱ

Actinoids Metal C

Sub Class Of MetalMaterial^C

Adhesive Material ^c

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Alkali Metal^c

Sub Class Of MetalMaterial^C

Alkaline Earth Metal ^c

Sub Class Of MetalMaterial^C

Aluminum Dome Tweeter C

Sub Class Of ElectronicsProduct^C

Bromide Material ^C

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Catalyst Composition ^C

IRI http://w3id.org/CEON/demo/electronics/CatalystComposition

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/product/MatterComposition

In Domain Of <u>hasCatalystCompositionValue</u> op

Restriction <u>hasCatalystCompositionValue op only CatalystComposition composition on the language of the langua</u>

Catalyst Composition Value ^c

IRI http://w3id.org/CEON/demo/electronics/CatalystCompositionV

alue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of <u>hasCatalystCompositionValue op</u>

Catalyst Material^C

IRI http://w3id.org/CEON/demo/electronics/CatalystMaterial

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Chemical Element Composition ^c

IRI http://w3id.org/CEON/demo/electronics/ChemicalElementCompo

sition

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/product/MatterComposition

In Domain Of hasChemicalElementCompositionValue op

Restriction hasChemicalElementCompositionValue op only ChemicalElementComposition on hasChemicalElementComposition on hasChemicalEle

Chemical Element Composition Value ^C

sitionValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasChemicalElementCompositionValue op

Restriction http://qudt.org/schema/qudt/hasUnit value

<u>ChemicalElementCompositionValue</u>^C

Conductivity ^C

Sub Class Of http://gudt.org/schema/gudt/Ouantity

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasConductivityValue op

In Range Of hasConductivity op

Restriction <u>hasConductivityValue</u> op only <u>Conductivity</u> only <u>Conductivity</u>

Conductivity Value ^C

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit^c

and http://qudt.org/schema/qudt/hasUnitop some

http://qudt.org/schema/qudt/Unit^C

In Range Of hasConductivityValue op

Restriction http://qudt.org/schema/qudt/numericValue only ConductivityValue^c

Core Material^C

http://w3id.org/CEON/demo/electronics/CoreMaterial

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Coupling Cone^C

Sub Class Of ElectronicsProduct^C

Damper ^C

Sub Class Of <u>ElectronicsProduct</u>^C

Named Individuals damper_xni

Density At25^C

Sub Class Of http://gudt.org/schema/gudt/Quantity

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasDensityAt25Value op

In Range Of hasDensityAt25^{op}

Restriction hasDensityAt25Value op only DensityAt25 c

Density At25Value ^C

IRI http://w3id.org/CEON/demo/electronics/DensityAt25Value

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnitop only http://qudt.org/schema/qudt/Unitop

and http://qudt.org/schema/qudt/hasUnit op some

http://qudt.org/schema/qudt/Unit^C

In Range Of hasDensityAt25Value op

Restriction http://qudt.org/schema/qudt/numericValue only DensityAt25Value only <a href="DensityAt25Value

Depth ^c

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasDepthValue op

In Range Of hasDepth^{op}

Restriction <u>hasDepthValue</u>^{op} only <u>Depth</u>^c

Depth Value ^C

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit op only http://qudt.org/schema/qudt/Unit c

and http://qudt.org/schema/qudt/hasUnitop some

http://qudt.org/schema/qudt/Unit^c

In Range Of hasDepthValue op

Restriction http://qudt.org/schema/qudt/numericValue only DepthValue only <a hre

Diameter ^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasDiameterValue op

In Range Of hasDiameter op

Restriction <u>hasDiameterValue</u> op only <u>Diameter</u> only <u>Diameter</u>

Diameter Value ^C

IRI http://w3id.org/CEON/demo/electronics/DiameterValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnitop only http://qudt.org/schema/qudt/Unitop

and http://qudt.org/schema/qudt/hasUnitop some

http://qudt.org/schema/qudt/Unit^c

In Range Of hasDiameterValue op

Restriction http://qudt.org/schema/qudt/numericValue only DiameterValue only

Double Magnet^C

Sub Class Of <u>ElectronicsProduct</u>^C

Super Class Of Frame^c

Electronics Product^c

Sub Class Of http://w3id.org/CEON/ontology/product/Product

Super Class Of

<u>AluminumDomeTweeter</u>^C

CouplingCone^C
Damper^C
DoubleMagnet^C
NeodymiumMagnet^C

<u>Speaker^c</u>

Electronics Product Sourcing Component Relation C

urcingComponentRelation

Sub Class Of http://w3id.org/CEON/ontology/provenance/Statement

Fastening Method ^C

Named Individuals PressFitOrFriction ni

Fiber Elongation At Break^c

IRI http://w3id.org/CEON/demo/electronics/FiberElongationAtBre

ak

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasFiberElongationAtBreakValue op

In Range Of hasFiberElongationAtBreak op

Restriction hasFiberElongationAtBreakValue op only FiberElongationAtBreakC

Fiber Elongation At Break Value ^C

IRI http://w3id.org/CEON/demo/electronics/FiberElongationAtBre

akValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/Unit only http://qudt.org/schema/qudt/Unit

С

In Range Of hasFiberElongationAtBreakValue op

Restriction http://qudt.org/schema/qudt/numericValue only FiberElongationAtBreakValue^C

Fiber Volume Content^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasFiberVolumeContentValue op

In Range Of hasFiberVolumeContent op

Restriction <u>hasFiberVolumeContentValue</u>^{op} only <u>FiberVolumeContent</u>^c

Fiber Volume Content Value ^C

IRI http://w3id.org/CEON/demo/electronics/FiberVolumeContentVa

lue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit^c

and http://qudt.org/schema/qudt/hasUnit op some

http://qudt.org/schema/qudt/Unit^c

In Range Of hasFiberVolumeContentValue op

Restriction http://qudt.org/schema/qudt/numericValue only FiberVolumeContentValue only

Fibre Material ^c

Sub Class Of <a href="http://w3id.org/CEON/ontology/material/Mater

Flame Retardant Material ^c

IRI http://w3id.org/CEON/demo/electronics/FlameRetardantMateri

al

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Frame ^c

Sub Class Of DoubleMagnet^C

Hardener Material^C

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Hazardous Material Percentage ^c

IRI http://w3id.org/CEON/demo/electronics/HazardousMaterialPer

centage

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasHazardousMaterial op

Restriction

http://qudt.org/schema/qudt/hasUnit^{op} value <u>HazardousMaterialPercentage</u>^c

http://qudt.org/schema/qudt/numericValue_only_HazardousMaterialPercentage_C

Lca Acidification ^C

IRI http://w3id.org/CEON/demo/electronics/LCAAcidification

Sub Class Of LCAValue^C

http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAAcidification^c

Lca Climate Change ^c

Sub Class Of

<u>LCAValue</u>^c

http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAClimateChange^c

Lca Climate Change Biogenic^C

http://w3id.org/CEON/demo/electronics/LCAClimateChangeBiog

enic

Sub Class Of

LCAValue^c

http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAClimateChangeBiogenic^C

Lca Climate Change Fossil^c

IRI http://w3id.org/CEON/demo/electronics/LCAClimateChangeFoss

il

Sub Class Of LCAValue^C

http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAClimateChangeFossil^C

Lca Ecotoxicity Fresh Water C

ater

Sub Class Of

LCAValue^c

http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAEcotoxicityFreshWater^C

Lca Eutrophication Fresh Water ^c

IRI http://w3id.org/CEON/demo/electronics/LCAEutrophicationFre

shWater

Sub Class Of

<u>LCAValue</u>^c

http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue-only-LCAEutrophicationFreshWater

Lca Eutrophication Marine ^c

IRI http://w3id.org/CEON/demo/electronics/LCAEutrophicationMar

ine

Sub Class Of

LCAValue^C

http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAEutrophicationMarine^c

Lca Human Toxicity Cancer^c

IRI http://w3id.org/CEON/demo/electronics/LCAHumanToxicityCanc

er

Sub Class Of

<u>LCAValue</u>^c

http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue_only_LCAHumanToxicityCancer^C

Lca Lonising Radition Human Health ^C

IRI http://w3id.org/CEON/demo/electronics/LCALonisingRaditionH

umanHealth

Sub Class Of

LCAValue^C

http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only

<u>LCALonisingRaditionHumanHealth</u>^c

Lca Mineral Use ^C

Sub Class Of

<u>LCAValue</u>^c

http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAMineralUse only

Lca Unit^C

Sub Class Of http://qudt.org/schema/qudt/Unit

Lca Value ^c

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasLCAValue op

Super Class Of

LCAAcidification C

<u>LCAClimateChange</u>^C

LCAClimateChangeBiogenic^C
LCAClimateChangeFossil^C
LCAEcotoxicityFreshWater^C
LCAEutrophicationFreshWater^C
LCAEutrophicationMarine^C
LCAHumanToxicityCancer^C

<u>LCALonisingRaditionHumanHealth</u>^c

<u>LCAMineralUse^C</u> <u>LCAWaterUse^C</u>

Lca Water Use ^C

Sub Class Of

LCAValue^C

http://qudt.org/schema/qudt/hasUnit^{op} some LCAUnit^c and http://qudt.org/schema/qudt/hasUnit^{op} only LCAUnit^c

Restriction http://qudt.org/schema/qudt/numericValue only LCAWaterUse^C

Laminate Material ^C

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Length ^C

IRI http://w3id.org/CEON/demo/electronics/Length

Sub Class Of

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Range Of hasLength^{op}

Length Value ^c

IRI http://w3id.org/CEON/demo/electronics/LengthValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnit op some http://qudt.org/schema/qudt/Unit c and http://qudt.org/schema/qudt/hasUnit op only http://qudt.org/schema/qudt/Unit

Restriction http://qudt.org/schema/qudt/numericValue only LengthValue^C

Life Span Time ^C

IRI http://w3id.org/CEON/demo/electronics/LifeSpanTime

Sub Class Of

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasLifeSpanTimeValue op

In Range Of hasLifeSpanTime op

Restriction hasLifeSpanTimeValue op only LifeSpanTimeC

Life Span Time Value ^c

IRI http://w3id.org/CEON/demo/electronics/LifeSpanTimeValue

http://qudt.org/schema/qudt/QuantityValue **Sub Class Of**

In Range Of hasLifeSpanTimeValue op

Restriction

http://qudt.org/schema/qudt/hasUnit op value LifeSpanTimeValue C http://qudt.org/schema/qudt/numericValue_only_LifeSpanTimeValueC

Material Grade ^c

http://w3id.org/CEON/demo/electronics/MaterialGrade

Named Individuals N35Hni

Matrix Additive M Aterial C

IRI http://w3id.org/CEON/demo/electronics/MatrixAdditiveMAteri

al

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Maximum Energy Product^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasMaximumEnergyProductValue^{op}

In Range Of hasMaximumEnergyProduct^{op}

Restriction hasMaximumEnergyProductValue^{op} only MaximumEnergyProduct^C

Maximum Energy Product Value ^C

Value

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnitop only http://qudt.org/schema/qudt/Unitop

and http://qudt.org/schema/qudt/hasUnit some

http://qudt.org/schema/qudt/Unit^c

In Range Of hasMaximumEnergyProductValue^{op}

Restriction http://gudt.org/schema/qudt/numericValue only MaximumEnergyProductValue only

Metal Composition ^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/product/MatterComposition

In Domain Of hasMetalCompositionValue op

Restriction hasMetalCompositionValue op only MetalComposition on only M

Metal Composition Value ^C

е

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasMetalCompositionValue op

Metal Material ^c

Sub Class Of <a href="http://w3id.org/CEON/ontology/material/Mater

Super Class Of

ActinoidsMetal^c
AlkaliMetal^c
AlkalineEarthMetal^c
TransitionalMetal^c

Motor Speed Type C

Named Individuals continuous variable speed ni

Motor Type ^C

Named Individuals Induction ni

Neodymium Magnet^C

IRI http://w3id.org/CEON/demo/electronics/NeodymiumMagnet

Sub Class Of ElectronicsProduct^C

Named Individuals neodymium_magnet_xⁿⁱ

Non Metal Material ^C

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Named Individuals

<u>carbon_material_a</u>ⁿⁱ <u>nitrogen_material_a</u>ⁿⁱ

Operating Voltage ^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasOperatingVoltageValue op

In Range Of hasOperatingVoltage op

Restriction <u>hasOperatingVoltageValue</u> only <u>OperatingVoltage</u> only <u>OperatingVoltage</u>

Operating Voltage Value ^c

IRI http://w3id.org/CEON/demo/electronics/OperatingVoltageValu

е

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit^c

and http://qudt.org/schema/qudt/hasUnit ome

http://qudt.org/schema/qudt/Unit^C

In Range Of hasOperatingVoltageValue op

Restriction http://qudt.org/schema/qudt/numericValue only OperatingVoltageValue

Post Consumer Recycled Content^C

IRI http://w3id.org/CEON/demo/electronics/PostConsumerRecycled

Content

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/product/ProductComposition

In Domain Of hasPostConsumerRecycledContentValue op

Restriction hasPostConsumerRecycledContentValue op only

PostConsumerRecycledContent^C

Post Consumer Recycled Content Value ^c

IRI http://w3id.org/CEON/demo/electronics/PostConsumerRecycled

ContentValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasPostConsumerRecycledContentValue op

Restriction

http://qudt.org/schema/qudt/hasUnit^{op} value PostConsumerRecycledContentValue^c http://qudt.org/schema/qudt/numericValue_only

PostConsumerRecycledContentValue^C

Post Customer Recycled Content^C

IRI http://w3id.org/CEON/demo/electronics/PostCustomerRecycled

Content

Named Individuals content 1ⁿⁱ

Pre Consumer Recycled Content^C

ontent

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/product/ProductComposition

In Domain Of hasPreConsumerRecycledContentValue op

Restriction hasPreConsumerRecycledContentValue op only PreConsumerRecycledContent

...

Pre Consumer Recycled Content Value ^C

IRI http://w3id.org/CEON/demo/electronics/PreConsumerRecycledC

ontentValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of <u>hasPreConsumerRecycledContentValue</u> op

Restriction

http://qudt.org/schema/qudt/hasUnitop value

<u>PreConsumerRecycledContentValue</u>^C

http://qudt.org/schema/qudt/numericValue_only

<u>PreConsumerRecycledContentValue</u>^C

Prepreg Material^C

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Rare Earth Composition ^C

Sub Class Of http://gudt.org/schema/gudt/Quantity

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/product/MatterComposition

In Domain Of hasRareEarthCompositionValue op

Restriction hasRareEarthCompositionValue op only RareEarthComposition c

Rare Earth Composition Value C

Value

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasRareEarthCompositionValue op

Rare Earth Material^C

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Rated Load Amps^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasRatedLoadAmpsValue op

In Range Of hasRatedLoadAmps op

Restriction hasRatedLoadAmpsValue^{op} only RatedLoadAmps^c

Rated Load Amps Value ^c

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit

С

In Range Of hasRatedLoadAmpsValue^{op}

Restriction http://qudt.org/schema/qudt/numericValue only RatedLoadAmpsValue

Rated Power Output^c

http://w3id.org/CEON/demo/electronics/RatedPowerOutput

Sub Class Of http://guidt.org/schema/guidt/Quantity

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasRatedPowerOutputValue^{op}

In Range Of hasRatedPowerOutput^{op}

Restriction <u>hasRatedPowerOutputValue^op</u> only <u>RatedPowerOutputCoutputC</u>

Rated Power Output Value C

IRI http://w3id.org/CEON/demo/electronics/RatedPowerOutputValu

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnitop some http://qudt.org/schema/qudt/Unitop and http://qudt.org/schema/qudt/hasUnitop only http://qudt.org/schema/qudt/Unit

In Range Of hasRatedPowerOutputValue op

Restriction http://qudt.org/schema/qudt/numericValue_only_RatedPowerOutputValue_c

Rated Rpm^C

IRI http://w3id.org/CEON/demo/electronics/RatedRPM

Sub Class Of

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasRatedRPMValue op

In Range Of hasRatedRPM^{op}

Restriction hasRatedRPMValue op only RatedRPMC

Rated Rpm Value C

IRI http://w3id.org/CEON/demo/electronics/RatedRPMValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit op only http://qudt.org/schema/qudt/Unit

In Range Of hasRatedRPMValue op

Restriction http://qudt.org/schema/qudt/numericValue_only_RatedRPMValue_0

Recycling Pressure^C

IRI http://w3id.org/CEON/demo/electronics/RecyclingPressure

Sub Class Of http://qudt.org/schema/qudt/Quantity

<u>hasRecyclingPressureValue</u> op only <u>RecyclingPressure</u> only <u>RecyclingPressure</u> Restriction

Recycling Pressure Value ^c

ue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit^c

and http://qudt.org/schema/qudt/hasUnitop some

http://qudt.org/schema/qudt/Unit^C

In Range Of hasRecyclingPressureValue op

Restriction http://qudt.org/schema/qudt/numericValue-only-RecyclingPressureValue

Recycling Process Duration ^C

IRI http://w3id.org/CEON/demo/electronics/RecyclingProcessDura

tion

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit

С

In Range Of hasRecyclingProcessDuration op

Restriction http://qudt.org/schema/qudt/numericValue only RecyclingProcessDuration ^c

Recycling Temperature Value ^C

Value

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/Unit^{op} only http://qudt.org/schema/qudt/Unit

C

In Range Of <u>hasRecyclingProcessTemperature op</u>

Restriction http://qudt.org/schema/qudt/numericValue only RecyclingTemperatureValue^C

Refractive Index At25^c

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Range Of hasRefractiveIndexAt25^{op}

Restriction hasRefractiveIndexAt25^{op} only RefractiveIndexAt25^c

Refractive Index At25Value^C

IRI http://w3id.org/CEON/demo/electronics/RefractiveIndexAt25V

alue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit

С

Restriction http://gudt.org/schema/gudt/numericValue-only-RefractiveIndexAt25Value

Remanent Magnetic Flux Density^c

IRI http://w3id.org/CEON/demo/electronics/RemanentMagneticFlux

Density

Sub Class Of http://gudt.org/schema/gudt/Quantity

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasRemanentMagneticFluxDensityValue op

In Range Of hasRemanentMagneticFluxDensity^{op}

Restriction hasRemanentMagneticFluxDensityValue op only RemanentMagneticFluxDensity

С

Remanent Magnetic Flux Density Value ^c

DensityValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c and http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit

C

In Range Of hasRemanentMagneticFluxDensityValue op

Restriction http://qudt.org/schema/qudt/numericValue only

<u>RemanentMagneticFluxDensityValue^c</u>

Renewable Content^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/product/ProductComposition

In Domain Of hasRenewableContentValue op

Restriction hasRenewableContentValue op only RenewableContentC

Renewable Content Value ^c

IRI http://w3id.org/CEON/demo/electronics/RenewableContentValu

е

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasRenewableContentValue op

Restriction

http://qudt.org/schema/qudt/hasUnit^{op} value RenewableContentValue^C

http://qudt.org/schema/qudt/numericValue_only RenewableContentValue_c

Resin Material^C

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Resistivity ^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasResistivityValue op

Restriction hasResistivityValue^{op} only Resistivity^c

Resistivity Value ^C

IRI http://w3id.org/CEON/demo/electronics/ResistivityValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasResistivityValue op

Restriction http://qudt.org/schema/qudt/numericValue only ResistivityValue^C

Shape ^c

Sub Class Of http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Range Of hasShape op

Named Individuals cylinderⁿⁱ

Shear Strength ^C

IRI http://w3id.org/CEON/demo/electronics/ShearStrength

Sub Class Of

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasShearStrengthValue op

In Range Of hasShearStrength^{op}

Restriction hasShearStrengthValue op only ShearStrengthc

Shear Strength Value ^c

IRI http://w3id.org/CEON/demo/electronics/ShearStrengthValue

Sub Class Of http://gudt.org/schema/gudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnit op some http://qudt.org/schema/qudt/Unit c and http://qudt.org/schema/qudt/hasUnit op only http://qudt.org/schema/qudt/Unit

In Range Of hasShearStrengthValue op

Restriction http://qudt.org/schema/qudt/numericValue only ShearStrengthValue C

Speaker ^c

IRI http://w3id.org/CEON/demo/electronics/Speaker

Sub Class Of ElectronicsProduct^C

Named Individuals speaker xni

Stiffness^C

IRI http://w3id.org/CEON/demo/electronics/Stiffness

Sub Class Of

http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasStiffnessValue op

In Range Of hasStiffness^{op}

Restriction hasStiffnessValue op only Stiffness c Stiffness Value ^c

IRI http://w3id.org/CEON/demo/electronics/StiffnessValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} some http://qudt.org/schema/qudt/Unit^c

and http://qudt.org/schema/qudt/hasUnitop only http://qudt.org/schema/qudt/Unit

С

In Range Of hasStiffnessValue op

Restriction http://qudt.org/schema/qudt/numericValue only StiffnessValue^C

Surface Finish Material ^c

IRI http://w3id.org/CEON/demo/electronics/SurfaceFinishMateria

l

Sub Class Of http://w3id.org/CEON/ontology/material/Material

Tensile Modulus^C

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasTensileModulusValue op

In Range Of hasTensileModulus op

Restriction <u>hasTensileModulusValue^{op} only TensileModulus^c</u>

Tensile Modulus Value ^c

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit^c

and http://qudt.org/schema/qudt/hasUnitop some

http://qudt.org/schema/qudt/Unit^c

In Range Of hasTensileModulusValue^{op}

Restriction http://qudt.org/schema/qudt/numericValue only TensileModulusValue only

Tensile Strength ^C

IRI http://w3id.org/CEON/demo/electronics/TensileStrength

Sub Class Of

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasTensileStrengthValue op

In Range Of hasTensileStrength^{op}

Restriction hasTensileStrengthValue op only TensileStrength c

Tensile Strength Value ^C

IRI http://w3id.org/CEON/demo/electronics/TensileStrengthValue

Sub Class Of http://gudt.org/schema/gudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnitop some http://qudt.org/schema/qudt/Unitop and http://qudt.org/schema/qudt/hasUnit op only http://qudt.org/schema/qudt/Unit

In Range Of hasTensileStrengthValue op

Restriction http://qudt.org/schema/qudt/numericValue_only_TensileStrengthValue_c

Transition Temperature ^C

IRI http://w3id.org/CEON/demo/electronics/TransitionTemperatur

Sub Class Of

http://qudt.org/schema/qudt/Quantity http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Domain Of hasTransitionTemperatureValue op

In Range Of hasTransitionTemperature op

Restriction hasTransitionTemperatureValue^{op} only TransitionTemperature^c

Transition Temperature Value c

IRI http://w3id.org/CEON/demo/electronics/TransitionTemperatur

eValue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnitop some http://qudt.org/schema/qudt/Unitop and http://gudt.org/schema/gudt/hasUnit op only http://gudt.org/schema/gudt/Unit

In Range Of hasTransitionTemperatureValue^{op}

Restriction http://qudt.org/schema/qudt/numericValue only TransitionTemperatureValue Control only Transition Control only Transitional Metal^c

Sub Class Of MetalMaterial^C

Unknown Acute Toxicity Percentage ^C

IRI http://w3id.org/CEON/demo/electronics/UnknownAcuteToxicity

Percentage

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of hasUnknownAcuteToxicity^{op}

Restriction

http://qudt.org/schema/qudt/hasUnit^{op} value <u>UnknownAcuteToxicityPercentage</u>^c

http://qudt.org/schema/qudt/numericValue only

<u>UnknownAcuteToxicityPercentage</u>^c

Virgin Fosil Content^c

In Domain Of <u>hasVirginFosilContentValue^op</u>

Virgin Fosil Content Value ^c

lue

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

In Range Of <u>hasVirginFosilContentValue op</u>

Restriction

http://qudt.org/schema/qudt/hasUnit^{op} value VirginFosilContentValue^C

http://qudt.org/schema/qudt/numericValue_only_VirginFosilContentValue_c

Virgin Fossil Content^c

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/product/ProductComposition

Restriction has Virgin Fosil Content Value op only Virgin Fossil Content C

Viscosity At25^c

IRI http://w3id.org/CEON/demo/electronics/ViscosityAt25

Sub Class Of

http://qudt.org/schema/qudt/Quantity. http://w3id.org/CEON/ontology/resourceODP/ResourceProperty.

In Domain Of hasViscosityAt25Value op

In Range Of hasViscosityAt25op

Restriction hasViscosityAt25Value^{op} only ViscosityAt25^c

Viscosity At25Value c

IRI http://w3id.org/CEON/demo/electronics/ViscosityAt25Value

Sub Class Of http://gudt.org/schema/gudt/QuantityValue

> http://qudt.org/schema/qudt/hasUnit op some http://qudt.org/schema/qudt/Unit c and http://qudt.org/schema/qudt/hasUnit op only http://qudt.org/schema/qudt/Unit

In Range Of hasViscosityAt25Value^{op}

Restriction http://qudt.org/schema/qudt/numericValue_only_ViscosityAt25Value_c

Width ^C

IRI http://w3id.org/CEON/demo/electronics/Width

Sub Class Of http://qudt.org/schema/qudt/Quantity

http://w3id.org/CEON/ontology/resourceODP/ResourceProperty

In Range Of hasWidth op

Width Value C

http://w3id.org/CEON/demo/electronics/WidthValue IRI

Sub Class Of http://qudt.org/schema/qudt/QuantityValue

http://qudt.org/schema/qudt/hasUnit^{op} only http://qudt.org/schema/qudt/Unit^c

and http://qudt.org/schema/qudt/hasUnitop some

http://qudt.org/schema/qudt/Unit^c

Restriction http://qudt.org/schema/qudt/numericValue_only_WidthValue_c

Issuing Resource ^C

IRI http://w3id.org/CEON/ontology/actor/IssuingResource

Named Individuals ds issue 1ⁿⁱ

Process Participation ^C

http://w3id.org/CEON/ontology/actor/ProcessParticipation

Named Individuals s63ⁿⁱ

Producing Resource^C

Named Individuals

<u>ss 1ⁿⁱ</u> <u>ss 2ⁿⁱ</u> <u>ss 3ⁿⁱ</u>

Supplying Resource^C

Named Individuals 87ⁿⁱ

Actor ^c

IRI http://w3id.org/CEON/ontology/actorODP/Actor

Named Individuals

Mni
company_ani
company_bni
company_xni
company_yni
dismantling_company_bni

Resource Relation^C

Named Individuals composition_aⁿⁱ

Process ^C

Named Individuals dismantling process 1ⁿⁱ

Statement ^C

Super Class Of <u>ElectronicsProductSourcingComponentRelation</u>^C

Named Individuals

composition_ani

<u>q1ⁿⁱ</u>

Object Properties

defined unit of system op

derived coherent unit of system op

exact match op

has dimension vector op

has unit op

IRI http://qudt.org/schema/qudt/hasUnit

compliance with op

has catalyst composition value op

onValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain <u>CatalystComposition</u>^C

Range <u>CatalystCompositionValue</u>^C

has chemical element op

Range http://w3id.org/CEON/ontology/material/ChemicalElement

has chemical element composition value op

IRI http://w3id.org/CEON/demo/electronics/hasChemicalElementCo

mpositionValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain ChemicalElementComposition^C

Range ChemicalElementCompositionValue^C

has conductivity op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain <u>http://w3id.org/CEON/ontology/product/Item</u>

Range Conductivity^C

has conductivity value op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

• Conductivity^C

 http://w3id.org/CEON/ontology/product/Item^c or http://w3id.org/CEON/ontology/product/Product^c

Range ConductivityValue^C

has density at25 op

IRI http://w3id.org/CEON/demo/electronics/hasDensityAt25

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range DensityAt25^C

has density at25value op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

DensityAt25^c

http://w3id.org/CEON/ontology/product/Product or
 http://w3id.org/CEON/ontology/product/Item or

Range DensityAt25Value^C

has depth op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Range Depth^C

has depth value op

Sub Property Of http://w3id.org/CEON/ontology/quantity/hasDimension

Domain

Depth^c

 http://w3id.org/CEON/ontology/product/Item^c or http://w3id.org/CEON/ontology/product/Product^C

Range <u>DepthValue</u>^C

has diameter op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Super Property Of hasOuterDiameter op

Range <u>Diameter</u>^c

has diameter value op

Sub Property Of http://w3id.org/CEON/ontology/quantity/hasDimension

Domain

Diameter^C

http://w3id.org/CEON/ontology/product/Item or
 http://w3id.org/CEON/ontology/product/Product C

Range <u>DiameterValue</u>^C

has fiber elongation at break op

IRI http://w3id.org/CEON/demo/electronics/hasFiberElongationAt

Break

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range FiberElongationAtBreak^C

has fiber elongation at break value op

BreakValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

• <u>FiberElongationAtBreak</u>^c

 http://w3id.org/CEON/ontology/product/Product^c or http://w3id.org/CEON/ontology/product/Item^c

Range <u>FiberElongationAtBreakValue</u>^C

has fiber volume content op

t

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range FiberVolumeContent^C

has fiber volume content value op

tValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

<u>FiberVolumeContent^C</u>

 http://w3id.org/CEON/ontology/product/Product^c or http://w3id.org/CEON/ontology/product/Item^c

Range <u>FiberVolumeContentValue</u>^C

has hazardous material op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain http://w3id.org/CEON/ontology/product/Product or

http://w3id.org/CEON/ontology/product/Item^c

Range <u>HazardousMaterialPercentage</u>^C

has Ica value op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Range LCAValue^C

has length op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Range Length^c

has life span time op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Range <u>LifeSpanTime</u>^C

has life span time value op

IRI http://w3id.org/CEON/demo/electronics/hasLifeSpanTimeValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

<u>LifeSpanTime^C</u>

 http://w3id.org/CEON/ontology/product/Product^c or http://w3id.org/CEON/ontology/product/Item^c

Range <u>LifeSpanTimeValue</u>^C

has maximum energy product op

IRI http://w3id.org/CEON/demo/electronics/hasMaximumEnergyProd

uct

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range <u>MaximumEnergyProduct</u>^C

has maximum energy product value op

http://w3id.org/CEON/demo/electronics/hasMaximumEnergyProd

uctValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

<u>MaximumEnergyProduct</u>^c

http://w3id.org/CEON/ontology/product/Item or
 http://w3id.org/CEON/ontology/product/Product

Range <u>MaximumEnergyProductValue</u>^C

has metal composition value op

alue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain <u>MetalComposition</u>^C

Range <u>MetalCompositionValue</u>^C

has operating voltage op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range OperatingVoltage^C

has operating voltage value op

IRI http://w3id.org/CEON/demo/electronics/has0peratingVoltageV

alue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

• OperatingVoltage^C

 http://w3id.org/CEON/ontology/product/Product^c or http://w3id.org/CEON/ontology/product/Item^c

Range Operating Voltage Value C

has outer diameter op

Sub Property Of hasDiameter op

has post consumer recycled content value op

ledContentValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

<u>PostConsumerRecycledContent</u>^C

Range PostConsumerRecycledContentValue^C

has pre consumer recycled content value op

edContentValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain <u>PreConsumerRecycledContent</u>^c

Range PreConsumerRecycledContentValue^C

has rare earth composition value op

ionValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain RareEarthComposition^C

Range RareEarthCompositionValue^C

has rated load amps op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range RatedLoadAmps^C

has rated load amps value op

е

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

RatedLoadAmps^c

 http://w3id.org/CEON/ontology/product/Product^c or http://w3id.org/CEON/ontology/product/Item^c

Range RatedLoadAmpsValue^c

has rated power output op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range RatedPowerOutput^C

has rated power output value op

alue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

RatedPowerOutput^C

 http://w3id.org/CEON/ontology/product/Product^c or http://w3id.org/CEON/ontology/product/Item^c

Range RatedPowerOutputValue^C

has rated rpm op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range RatedRPM^C

has rated rpm value op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

RatedRPM^c

• http://w3id.org/CEON/ontology/product/Item

Range RatedRPMValue^C

has recycling pressure value op

IRI http://w3id.org/CEON/demo/electronics/hasRecyclingPressure

Value

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Range RecyclingPressureValue^C

has recycling process duration op

uration

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Range RecyclingProcessDuration^C

has recycling process temperature op

IRI http://w3id.org/CEON/demo/electronics/hasRecyclingProcessT

emperature

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Range RecyclingTemperatureValue^C

has refractive index at25 op

25

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Range RefractiveIndexAt25^c

has remanent magnetic flux density op

IRI http://w3id.org/CEON/demo/electronics/hasRemanentMagneticF

luxDensity

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range RemanentMagneticFluxDensity^C

has remanent magnetic flux density value op

luxDensityValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

RemanentMagneticFluxDensity^c

http://w3id.org/CEON/ontology/product/Item

Range RemanentMagneticFluxDensityValue^C

has renewable content value op

IRI http://w3id.org/CEON/demo/electronics/hasRenewableContentV

alue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

RenewableContent^c

• http://w3id.org/CEON/ontology/product/Item

Range RenewableContentValue^C

has resistivity value op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

Resistivity^C

http://w3id.org/CEON/ontology/product/Item

Range Resistivity Value C

has shape op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Range Shape^C

has shear strength op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range ShearStrength^C

has shear strength value op

IRI http://w3id.org/CEON/demo/electronics/hasShearStrengthValu

е

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

ShearStrength^c

http://w3id.org/CEON/ontology/product/Item

Range <u>ShearStrengthValue</u>^C

has stiffness op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain <u>http://w3id.org/CEON/ontology/product/Item</u>

Range Stiffness^C

has stiffness value op

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

Stiffness^c

http://w3id.org/CEON/ontology/product/Item

Range <u>StiffnessValue</u>^C

has tensile modulus op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range TensileModulus^C

has tensile modulus value op

IRI http://w3id.org/CEON/demo/electronics/hasTensileModulusVal

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

<u>TensileModulus</u>^C <u>http://w3id.org/CEON/ontology/product/Item</u>

Range <u>TensileModulusValue^C</u>

has tensile strength op

IRI http://w3id.org/CEON/demo/electronics/hasTensileStrength

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

http://w3id.org/CEON/ontology/product/Item **Domain**

Range TensileStrength^C

has tensile strength value op

IRI http://w3id.org/CEON/demo/electronics/hasTensileStrengthVa

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

<u>TensileStrength</u>^C

http://w3id.org/CEON/ontology/product/Item

Range <u>TensileStrengthValue</u>^C

has transition temperature op

IRI http://w3id.org/CEON/demo/electronics/hasTransitionTempera

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range <u>TransitionTemperature</u>^c

has transition temperature value op

IRI http://w3id.org/CEON/demo/electronics/hasTransitionTempera

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

• <u>TransitionTemperature</u>^C

http://w3id.org/CEON/ontology/product/Item

Range <u>TransitionTemperatureValue</u>^C has unknown acute toxicity op

IRI http://w3id.org/CEON/demo/electronics/hasUnknownAcuteToxic

ity

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain http://w3id.org/CEON/ontology/product/Item

Range <u>UnknownAcuteToxicityPercentage</u>^C

has virgin fosil content value op

http://w3id.org/CEON/demo/electronics/hasVirginFosilConten

tValue

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

<u>VirginFosilContent^C</u>

http://w3id.org/CEON/ontology/product/Item

Range <u>VirginFosilContentValue</u>^C

has viscosity at25 op

IRI http://w3id.org/CEON/demo/electronics/hasViscosityAt25

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Domain http://w3id.org/CEON/ontology/product/Item

Range <u>ViscosityAt25</u>^C

has viscosity at25value op

е

Sub Property Of http://qudt.org/schema/qudt/quantityValue

Domain

ViscosityAt25^c

http://w3id.org/CEON/ontology/product/Item

Range <u>ViscosityAt25Value</u>^C

has width op

Sub Property Of http://w3id.org/CEON/ontology/resourceODP/hasResourceProperty

Range Width^c

participant role op

participating actor op

http://w3id.org/CEON/ontology/actorODP/participatingActor

participating resource op

ce

participation in op

http://w3id.org/CEON/ontology/actorODP/participationIn

Datatype Properties

conversion multiplier dp

http://qudt.org/schema/qudt/conversionMultiplier

iec61360code dp

http://qudt.org/schema/qudt/iec61360Code

numerical value dp

IRI http://qudt.org/schema/qudt/numericalValue

si units expression dp

has astm compliance file url dp

eUrl

Sub Property Of hasFileUrl dp

has batch invoice number dp

http://w3id.org/CEON/demo/electronics/hasBatchInvoiceNumbe

r

Range xsd:string

has batch number dp

Domain http://w3id.org/CEON/ontology/resourceODP/BatchOfObjects

Range <u>xsd:integer</u>

has black e coating brand name dp

IRI http://w3id.org/CEON/demo/electronics/hasBlackECoatingBran

dName

Range xsd:string

has black e coating technical datasheet dp

nicalDatasheet

Sub Property Of hasFileUrl dp

Range xsd:string

has casting certificate dp

е

Sub Property Of hasFileUrl dp

Range xsd:string

has decomissioning date ^{dp}

е

Range xsd:dateTime

has decommission reason dp

n

has efficiency class dp

has environmental product declaration dp

uctDeclaration

Sub Property Of hasFileUrldp

Range xsd:string

has file url dp

Super Property Of

• hasASTMComplianceFileUrldp

• <u>hasBlackECoatingTechnicalDatasheet</u>dp

hasCastingCertificate^{dp}

hasEnvironmentalProductDeclaration^{dp}

• hasFireWorkingConditionComplianceFileUrldp

<u>hasHysteresisCurveTechReport</u>^{dp}

• hasISOComplianceFileUrldp

• <u>hasLCAReport</u>dp

<u>hasMaterialDatasheet</u>^{dp}

<u>hasNormativeReferenceFileUrl</u>^{dp}

• hasPassivationProductTechnicalDatasheet^{dp}

• <u>hasREACHComplianceFileUrl</u>dp

hasResponsibleSourcingCertificate^{dp}

• <u>hasRoHSComplianceFileUrl dp</u>

hasSafetyDatasheet^{dp}

hasSupplyDueDiligencePolicyReport^{dp}

hasSustainabilityDeclaration^{dp}

Range <u>xsd:string</u>

has fire working condition compliance file url dp

ionComplianceFileUrl

Sub Property Of hasFileUrl^{dp}

Range <u>xsd:string</u>

has hysteresis curve tech report dp

http://w3id.org/CEON/demo/electronics/hasHysteresisCurveTe

chReport

Sub Property Of hasFileUrl dp

has iso compliance file url dp

IRI http://w3id.org/CEON/demo/electronics/hasISOComplianceFile

Url

Sub Property Of hasFileUrldp

Range xsd:string

has installation date dp

Range <u>xsd:dateTime</u>

has installation instructions dp

http://w3id.org/CEON/demo/electronics/hasInstallationInstr

uctions

Range xsd:string

has intended application dp

on

Range xsd:string

has lca report^{dp}

Sub Property Of hasFileUrl dp

Range <u>xsd:string</u>

has lay up sequence dp

http://w3id.org/CEON/demo/electronics/hasLayUpSequence

Range <u>xsd:string</u>

has magnet location dp

has maintenance instructions dp

IRI http://w3id.org/CEON/demo/electronics/hasMaintenanceInstru

ctions

Range xsd:string

has maintenance measures dp

es

Range <u>xsd:string</u>

has maintenance report dp

Range xsd:string

has maintenance trigger dp

r

Range <u>xsd:string</u>

has manufacturing sequence dp

ence

Range xsd:string

has material datasheet dp

Sub Property Of hasFileUrl dp

Range <u>xsd:string</u>

has normative reference file url dp

IRI http://w3id.org/CEON/demo/electronics/hasNormativeReferenc

eFileUrl

Sub Property Of hasFileUrl dp

Range <u>xsd:string</u>

has part number code dp

Range xsd:string

has passivation product technical datasheet dp

tTechnicalDatasheet

Sub Property Of hasFileUrl dp

Range <u>xsd:string</u>

has production date dp

Domain http://w3id.org/CEON/ontology/resourceODP/BatchOfObjects

Range <u>xsd:dateTime</u>

has quality test link dp

Range xsd:string

has reach compliance file url dp

IRI http://w3id.org/CEON/demo/electronics/hasREACHComplianceFi

leUrl

Sub Property Of hasFileUrl dp

Range <u>xsd:string</u>

has recycling process name dp

IRI http://w3id.org/CEON/demo/electronics/hasRecyclingProcessN

ame

Range <u>xsd:string</u>

has repair instructions dp

S

Range xsd:anyURI

has reported damage dp

Range <u>xsd:string</u>

has reported repairs dp

http://w3id.org/CEON/demo/electronics/hasReportedRepairs

Range <u>xsd:string</u>

has responsible sourcing certificate dp

ngCertificate

Sub Property Of hasFileUrl dp

Range xsd:string

has ro hs compliance file url dp

eUrl

Sub Property Of hasFileUrl dp

Range <u>xsd:string</u>

has safety datasheet dp

Sub Property Of hasFileUrl dp

Range xsd:string

has site name ^{dp}

Range xsd:string

has size level ^{dp}

Range xsd:double

has supply due diligence policy report dp

IRI http://w3id.org/CEON/demo/electronics/hasSupplyDueDiligenc

ePolicyReport

Sub Property Of hasFileUrl dp

Range xsd:string

has sustainability declaration dp

IRI http://w3id.org/CEON/demo/electronics/hasSustainabilityDec

laration

Sub Property Of hasFileUrl dp

Range xsd:string

has use and assembly instructions dp

tructions

Range <u>xsd:string</u>

hasdisassembly instructions dp

ctions

Range <u>xsd:string</u>

is adhesive contained dp

Range xsd:boolean

is bromide contained dp

Range xsd:boolean

is catalyst contained dp

Range xsd:boolean

is cores contained dp

is flame retardant dp

Range xsd:boolean

is high uv resistance dp

http://w3id.org/CEON/demo/electronics/isHighUVResistance

Range xsd:boolean

is laminate contained dp

Range <u>xsd:boolean</u>

is matrix additive contained dp

ained

Range xsd:boolean

is metal contained ^{dp}

http://w3id.org/CEON/demo/electronics/isMetalContained

Range xsd:boolean

is nitrogen contained dp

Range <u>xsd:boolean</u>

is oxygen contained dp

Range xsd:boolean

is pre preg contained dp

Range xsd:boolean

is reac hcomplied dp

Range xsd:boolean

is rare earth contained dp

http://w3id.org/CEON/demo/electronics/isRareEarthContained

Range xsd:boolean

is ro hs complied $^{\mbox{\scriptsize dp}}$

Range xsd:boolean

is surface finish contained ^{dp}

ined

Range xsd:boolean

number of recycling cycles dp

les

participation time point dp

int

Annotation Properties

```
expression ap

IRI http://qudt.org/schema/qudt/expression

participating object ap

IRI http://w3id.org/CEON/ontology/actorODP/participatingObject

participating subject ap

IRI http://w3id.org/CEON/ontology/actorODP/participatingSubjec t

statement about ap

IRI http://w3id.org/CEON/ontology/statement/statementAbout
```

Namespaces

```
:
    http://w3id.org/CEON/demo/electronics/
dcterms
    http://purl.org/dc/terms/
owl
    http://www.w3.org/2002/07/owl#
prov
    http://www.w3.org/ns/prov#
rdf
    http://www.w3.org/1999/02/22-rdf-syntax-ns#
rdfs
    http://www.w3.org/2000/01/rdf-schema#
vann
    http://purl.org/vocab/vann/
xsd
    http://www.w3.org/2001/XMLSchema#
```

Legend

С	Classes
ор	Object Properties
dp	Datatype Properties
ap	Annotation Properties