

Circular Economy Ontology Network (CEON) - Electronics Module

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Electronics Module

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Version Iri

<http://w3id.org/CEON/demo/electronics/0.1/>

Version Info

0.1

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

IRI <http://w3id.org/CEON/demo/electronics/ActinoidsMetal>

Sub Class Of [MetalMaterial^C](#)

Adhesive Material^C

IRI <http://w3id.org/CEON/demo/electronics/AdhesiveMaterial>

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

Alkali Metal^C

IRI <http://w3id.org/CEON/demo/electronics/AlkaliMetal>

Sub Class Of [MetalMaterial^C](#)

Alkaline Earth Metal^C

IRI <http://w3id.org/CEON/demo/electronics/AlkalineEarthMetal>

Sub Class Of [MetalMaterial^C](#)

Aluminum Dome Tweeter^C

IRI <http://w3id.org/CEON/demo/electronics/AluminumDomeTweeter>

Sub Class Of [electronics product^C](#)

Bromide Material^C

IRI <http://w3id.org/CEON/demo/electronics/BromideMaterial>

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

Catalyst Material^C

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

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

Core Material^C

IRI <http://w3id.org/CEON/demo/electronics/CoreMaterial>

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

Coupling Cone^C

IRI <http://w3id.org/CEON/demo/electronics/CouplingCone>

Sub Class Of [electronics_product^C](#)

Damper^C

IRI <http://w3id.org/CEON/demo/electronics/Damper>

Sub Class Of [electronics_product^C](#)

Named Individuals [damper_xⁿⁱ](#)

Double Magnet^C

IRI <http://w3id.org/CEON/demo/electronics/DoubleMagnet>

Sub Class Of [electronics_product^C](#)

electronics_product^C

IRI <http://w3id.org/CEON/demo/electronics/ElectronicsProduct>

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

Super Class Of

- [AluminumDomeTweeter^C](#)
- [CouplingCone^C](#)
- [Damper^C](#)
- [DoubleMagnet^C](#)
- [Frame^C](#)
- [NeodymiumMagnet^C](#)
- [Speaker^C](#)

Electronics Product Sourcing Component Relation^C

| | |
|----------------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/ElectronicsProductSourcingComponentRelation |
| <u>Sub Class Of</u> | http://w3id.org/CEON/ontology/provenance/Statement |

Fibre Material^C

| | |
|----------------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/FibreMaterial |
| <u>Sub Class Of</u> | http://w3id.org/CEON/ontology/material/Material |

Flame Retardant Material^C

| | |
|----------------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/FlameRetardantMaterial |
| <u>Sub Class Of</u> | http://w3id.org/CEON/ontology/material/Material |

Frame^C

| | |
|----------------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/Frame |
| <u>Sub Class Of</u> | electronics product^C |

Hardener Material^C

| | |
|----------------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/HardenerMaterial |
| <u>Sub Class Of</u> | http://w3id.org/CEON/ontology/material/Material |

Lca Unit^C

| | |
|----------------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/LCAUnit |
| <u>Description</u> | Units for LCA (Life Cycle Assessment) environmental impact indexes |
| <u>Sub Class Of</u> | http://qudt.org/schema/qudt/Unit |

Laminate Material^C

IRI <http://w3id.org/CEON/demo/electronics/LaminateMaterial>

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

Matrix Additive M Aterial^C

IRI <http://w3id.org/CEON/demo/electronics/MatrixAdditiveMAterial>

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

Metal Material^C

IRI <http://w3id.org/CEON/demo/electronics/MetalMaterial>

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

Super Class Of
[ActinoidsMetal^C](#)
[AlkaliMetal^C](#)
[AlkalineEarthMetal^C](#)
[TransitionalMetal^C](#)

Neodymium Magnet^C

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

Sub Class Of [electronics_product^C](#)

Named Individuals [neodymium_magnet_xⁿⁱ](#)

Non Metal Material^C

IRI <http://w3id.org/CEON/demo/electronics/NonMetalMaterial>

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

Named Individuals
[carbon_material_aⁿⁱ](#)
[nitrogen_material_aⁿⁱ](#)

Post Customer Recycled Content^C

IRI <http://w3id.org/CEON/demo/electronics/PostCustomerRecycledContent>

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

Named Individuals [content_1ⁿⁱ](#)

Pre Customer Recycled Content^C

IRI <http://w3id.org/CEON/demo/electronics/PreCustomerRecycledContent>

Description The recycled content during the process of manufacturing or delivering products before delivering to a customer.

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

Prepreg Material^C

IRI <http://w3id.org/CEON/demo/electronics/PrepregMaterial>

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

Rare Earth Material^C

IRI <http://w3id.org/CEON/demo/electronics/RareEarthMaterial>

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

Renewable Content^C

IRI <http://w3id.org/CEON/demo/electronics/RenewableContent>

Description The content of product/material that can be renewed.

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

Resin Material^C

IRI <http://w3id.org/CEON/demo/electronics/ResinMaterial>

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

Speaker^C

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

Sub Class Of [electronics product^C](#)

Named Individuals [speaker_xⁿⁱ](#)

Surface Finish Material^C

IRI <http://w3id.org/CEON/demo/electronics/SurfaceFinishMaterial>

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

Transitional Metal^C

IRI <http://w3id.org/CEON/demo/electronics/TransitionalMetal>

Sub Class Of [MetalMaterial^C](#)

Virgin Fossil Content^C

IRI <http://w3id.org/CEON/demo/electronics/VirginFossilContent>

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

Issuing Resource^C

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

Named Individuals [ds_issue_1ⁿⁱ](#)

Process Participation^C

IRI <http://w3id.org/CEON/ontology/actor/ProcessParticipation>

Named Individuals [s63ⁿⁱ](#)

Producing Resource^C

IRI <http://w3id.org/CEON/ontology/actor/ProducingResource>

Named Individuals

[ss_1](#)ⁿⁱ

[ss_2](#)ⁿⁱ

[ss_3](#)ⁿⁱ

Supplying Resource^C

IRI <http://w3id.org/CEON/ontology/actor/SupplyingResource>

Named Individuals [s7](#)ⁿⁱ

Actor^C

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

Named Individuals

[M](#)ⁿⁱ

[company_a](#)ⁿⁱ

[company_b](#)ⁿⁱ

[company_x](#)ⁿⁱ

[company_y](#)ⁿⁱ

[dismantling_company_b](#)ⁿⁱ

Resource Relation^C

IRI <http://w3id.org/CEON/ontology/actorODP/ResourceRelation>

Named Individuals [composition_a](#)ⁿⁱ

Process^C

IRI <http://w3id.org/CEON/ontology/processODP/Process>

Named Individuals [dismantling_process_1](#)ⁿⁱ

Object Properties

defined unit of system^{op}

IRI <http://qudt.org/schema/qudt/definedUnitOfSystem>

derived coherent unit of system^{op}

IRI <http://qudt.org/schema/qudt/derivedCoherentUnitOfSystem>

exact match^{op}

IRI <http://qudt.org/schema/qudt/exactMatch>

has dimension vector^{op}

IRI <http://qudt.org/schema/qudt/hasDimensionVector>

has unit^{op}

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

participant role^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/participantRole>

participating actor^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/participatingActor>

participating resource^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/participatingResource>

participation in^{op}

IRI <http://w3id.org/CEON/ontology/actorODP/participationIn>

Datatype Properties

conversion multiplier^{dp}

IRI <http://qudt.org/schema/qudt/conversionMultiplier>

iec61360code^{dp}

IRI <http://qudt.org/schema/qudt/iec61360Code>

numerical value^{dp}

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

si units expression^{dp}

IRI <http://qudt.org/schema/qudt/siUnitsExpression>

Lca-Acidification^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-Acidification>

Range [xsd:double](#)

Lca-Climate Change^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-ClimateChange>

Range [xsd:double](#)

Lca-Climate Change Biogenic^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-ClimateChangeBiogenic>

Range [xsd:double](#)

Lca-Climate Change Fossil^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-ClimateChangeFossil>

Range [xsd:double](#)

Lca-Ecotoxicity Freshwater^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-EcotoxicityFreshwater>

Range [xsd:double](#)

Lca-Eutrophication Freshwater^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-EutrophicationFreshwater>

Range [xsd:double](#)

Lca-Eutrophication Marine^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-EutrophicationMarine>

Range [xsd:double](#)

Lca-Human Toxicity Cancer^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-HumanToxicityCancer>

Range [xsd:double](#)

Lca-Lonising Radition Human Health^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-LonisingRaditionHumanHealth>

Range [xsd:double](#)

Lca-Mineral Use^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-MineralUse>

Range [xsd:double](#)

Lca-Water Use^{dp}

IRI <http://w3id.org/CEON/demo/electronics/LCA-WaterUse>

Range [xsd:double](#)

Batch number^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/batchNumber |
| Description | batchNumber represents the identical information of a batch of objects. |
| Domain | http://w3id.org/CEON/ontology/resourceODP/BatchOfObjects |
| Range | xsd:integer |

component diameter^{dp}

| | |
|--------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/componentDiameter |
| Range | xsd:double |

component length^{dp}

| | |
|--------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/componentLength |
| Range | xsd:double |

Date of decomissioning^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/dateOfDecomissioning |
| Description | dateOfDecomissioning represents the date of decomissioning of a batch of products. |
| Range | xsd:dateTime |

Date of installation^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/dateOfInstallation |
| Description | dateOfInstallation represents the date of installation of a batch of products. |
| Range | xsd:dateTime |

Date of production^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/dateOfProduction |
| Description | dateOfProduction represents the date of production of a batch of products. |
| Domain | http://w3id.org/CEON/ontology/resourceODP/BatchOfObjects |
| Range | xsd:dateTime |

decommission reason^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/decommissionReason |
| Description | The reason for a decommission operation. |
| Range | xsd:string |

density at25^{dp}

| | |
|--------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/densityAt25 |
| Range | xsd:double |

electrical conductivity^{dp}

| | |
|--------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/electricalConductivity |
| Range | xsd:double |

electrical resistivity^{dp}

| | |
|--------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/electricalResistivity |
| Range | xsd:double |

fatigue resistance^{dp}

| | |
|------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/fatigueResistance |
|------------|---|

fiber elongation at break^{dp}

IRI <http://w3id.org/CEON/demo/electronics/fiberElongationAtBreak>

Range [xsd:double](#)

fibre volume content^{dp}

IRI <http://w3id.org/CEON/demo/electronics/fibreVolumeContent>

Range [xsd:double](#)

flame retardancy^{dp}

IRI <http://w3id.org/CEON/demo/electronics/flameRetardancy>

Description Flame Retardancy property is used to represent whether a product or content resist or delay the ignition and spread of fire. This property has 'True' of 'False' values.

Range [xsd:boolean](#)

hazardous materials percentage^{dp}

IRI <http://w3id.org/CEON/demo/electronics/hazardousMaterialsPercentage>

Description The percentage of hazardous materials.

Range [xsd:double](#)

high uv resistance^{dp}

IRI <http://w3id.org/CEON/demo/electronics/highUVResistance>

Description High UV Resistance property is used to represent whether a product or content withstand the damaging effects of ultraviolet (UV) radiation. It has values 'True' or 'False'.

Range [xsd:boolean](#)

instruction of repair^{dp}

IRI <http://w3id.org/CEON/demo/electronics/instructionOfRepair>

Range [xsd:string](#)

instruction of use and assembly^{dp}

IRI <http://w3id.org/CEON/demo/electronics/instructionOfUseAndAssembly>

Range [xsd:string](#)

instructionof maintenance^{dp}

IRI <http://w3id.org/CEON/demo/electronics/instructionofMaintenance>

Range [xsd:string](#)

lay up sequence^{dp}

IRI <http://w3id.org/CEON/demo/electronics/layUpSequence>

Range [xsd:string](#)

Location of batch component. The property may be replaced by a location module in the future.locationOfBatchComponent represents the location information of a component object within a batch.^{dp}

IRI <http://w3id.org/CEON/demo/electronics/locationOfBatchComponent>

Range [xsd:string](#)

maintenance report^{dp}

IRI <http://w3id.org/CEON/demo/electronics/maintenanceReport>

Range [xsd:string](#)

manufacturing sequence^{dp}

IRI <http://w3id.org/CEON/demo/electronics/manufacturingSequence>

Range [xsd:string](#)

number of recycling cycles^{dp}

IRI <http://w3id.org/CEON/demo/electronics/numberOfRecyclingCycles>

product diameter^{dp}

IRI <http://w3id.org/CEON/demo/electronics/productDiameter>

Range [xsd:double](#)

recycling pressure^{dp}

IRI <http://w3id.org/CEON/demo/electronics/recyclingPressure>

Description To represent the pressure condition in a recycling process.

Range [xsd:double](#)

recycling process duration^{dp}

IRI <http://w3id.org/CEON/demo/electronics/recyclingProcessDuration>

Range [xsd:double](#)

recycling process name^{dp}

IRI <http://w3id.org/CEON/demo/electronics/recyclingProcessName>

Range [xsd:string](#)

recycling temperature^{dp}

IRI <http://w3id.org/CEON/demo/electronics/recyclingTemperature>

Description To represent the temperature condition in a recycling process.

Range [xsd:double](#)

refractive index at25^{dp}

IRI <http://w3id.org/CEON/demo/electronics/refractiveIndexAt25>

Range [xsd:double](#)

reported damage^{dp}

IRI <http://w3id.org/CEON/demo/electronics/reportedDamage>

Description reportedDamage is used to represent damage information.

Range [xsd:string](#)

reported repairs^{dp}

IRI <http://w3id.org/CEON/demo/electronics/reportedRepairs>

Description reportedRepairs is used to represent repairing information.

Range [xsd:string](#)

sample length^{dp}

IRI <http://w3id.org/CEON/demo/electronics/sampleLength>

Range [xsd:double](#)

shear strength^{dp}

IRI <http://w3id.org/CEON/demo/electronics/shearStrength>

Range [xsd:double](#)

site address^{dp}

IRI <http://w3id.org/CEON/demo/electronics/siteAddress>

Description The address of the site. This property may be replaced by a location module in the future.

Range [xsd:string](#)

site city^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/siteCity |
| Description | The city of the site. This property may be replaced by a location module in the future. |
| Range | xsd:string |

site country^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/siteCountry |
| Description | The country of the site. This property may be replaced by a location module in the future. |
| Range | xsd:string |

site name^{dp}

| | |
|--------------------|--|
| IRI | http://w3id.org/CEON/demo/electronics/siteName |
| Description | The name of the site where the batch of products is located. This property may be replaced by a location module in the future. |
| Range | xsd:string |

site zip code^{dp}

| | |
|--------------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/siteZipCode |
| Description | The Zip Code of the site. This property may be replaced by a location module in the future. |
| Range | xsd:string |

size level^{dp}

| | |
|--------------|---|
| IRI | http://w3id.org/CEON/demo/electronics/sizeLevel |
| Range | xsd:double |

stiffness^{dp}

IRI <http://w3id.org/CEON/demo/electronics/stiffness>

Range [xsd:double](#)

tensile modulus^{dp}

IRI <http://w3id.org/CEON/demo/electronics/tensileModulus>

Range [xsd:double](#)

tensile strength^{dp}

IRI <http://w3id.org/CEON/demo/electronics/tensileStrength>

Description Tensile Strength is a used to represent the ability of a product or some content to resist breaking when it is pulled apart. It is the maximum stress that a product can withstand before breaking.

Range [xsd:double](#)

transition temperature^{dp}

IRI <http://w3id.org/CEON/demo/electronics/transitionTemperature>

Description Tg

Range [xsd:double](#)

viscosity at25^{dp}

IRI <http://w3id.org/CEON/demo/electronics/viscosityAt25>

Range [xsd:double](#)

participation time point^{dp}

IRI <http://w3id.org/CEON/ontology/actorODP/participationTimePoint>

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/participatingSubject |
| statement about ^{ap} | |
| IRI | http://w3id.org/CEON/ontology/provenance/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

c

Classes

op

Object Properties

dp

Datatype Properties

