

Circular Economy Ontology Network (CEON) - Construction Module

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Construction Module

Creator

Robin Keskisärkkä

Contributor

Eva Blomqvist

Huanyu Li

Mikael Lindecrantz

Date Created

2023-09-14

License

<https://creativecommons.org/licenses/by/4.0/>

Version Iri

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

Version Info

0.1

Preferred Namespace Prefix

construction

Preferred Namespace Uri

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

Description

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

Classes

Condition ^C	
IRI	http://w3id.org/CEON/demo/construction/Condition
Description	Condition is used to describe the condition of a specific product object.
In Range Of	has condition ^{OP}
Super Class Of	Floor Tile Condition ^C

Contaminant^c

IRI <http://w3id.org/CEON/demo/construction/Contaminant>

Description

A contaminant is any physical thing that is regarded as a contaminant when present in a product or product object.

In Range Of [has contaminant^{op}](#)

Dimensional Deviation^c

IRI <http://w3id.org/CEON/demo/construction/DimensionalDeviation>

In Range Of

[has dimensional deviation^{op}](#)

Fire resistance rating^c

IRI <http://w3id.org/CEON/demo/construction/FireResistanceRating>

Description

Fire resistance rating is expressed as 'F' followed by the minimum number of minutes in which the functionality of the product or product object can withstand fire. For example, F30 would therefore be a fire resistance duration of 30 min.

In Range Of [has frire resistance rating^{op}](#)

Named Individuals

[F30ⁿⁱ](#)
[F60ⁿⁱ](#)

Fire Resistance Relation^c

IRI <http://w3id.org/CEON/demo/construction/FireResistanceRelation>

Sub Class Of [actorODP:ResourceParticipation](#)

Floor tile^c

IRI <http://w3id.org/CEON/demo/construction/FloorTile>

Description

A floor tile is a type of product that used to cover a floor.

Sub Class Of [product:Product](#)

Floor Tile Condition^c

IRI	http://w3id.org/CEON/demo/construction/FloorTileCondition
Description	Floor Tile Condition is used to describe the condition of a floor tile (good, medium, bad).
Sub Class Of	Condition^c
Named Individuals	bad conditionⁿⁱ good conditionⁿⁱ medium conditionⁿⁱ

Floor Tile Condition Relation^c

IRI	http://w3id.org/CEON/demo/construction/FloorTileConditionRelation
Sub Class Of	actorODP:ResourceParticipation

Galvanized Steel Material^c

IRI	http://w3id.org/CEON/demo/construction/GalvanizedSteelMaterial
Sub Class Of	material:Material

Policy On Treatment^c

IRI	http://w3id.org/CEON/demo/construction/PolicyOnTreatment
Description	PolicyOnTreatment represents the the policy for treatment (reuse, refurbish or reprocessing)
In Range Of	policy on treatment^{op}
Named Individuals	refurbishⁿⁱ reprocessⁿⁱ reuseⁿⁱ

Product quality^c

IRI	http://w3id.org/CEON/demo/construction/ProductQuality
Description	ProductQuality represents the quality of a product or product object.
In Range Of	has product quality ^{op}
Named Individuals	Product quality high ⁿⁱ Product quality low ⁿⁱ Product quality medium ⁿⁱ

treatment policy^c

IRI	http://w3id.org/CEON/demo/construction/TreatmentPolicy
Description	TreatmentPolicy is used to describe the policy for treatment for a given product or product object.
Named Individuals	refurbish ⁿⁱ reprocess ⁿⁱ reuse ⁿⁱ

Object Properties

has condition^{op}

IRI	http://w3id.org/CEON/demo/construction/hasCondition
Description	hasCondition is used to describe the condition of a specific product object.
Sub Property Of	topObjectProperty ^{op}
Domain	product:ProductObject ^c or product:Product ^c
Range	Condition ^c

has contaminant^{op}

IRI	http://w3id.org/CEON/demo/construction/hasContaminant
Description	hasContaminant is used to express the presence of contaminants in a product or product object.
Domain	product:Product
Range	Contaminant^c

has dimension^{op}

IRI	http://w3id.org/CEON/demo/construction/hasDimension
Description	hasDimension is used to describe a dimension of a product or product object.
Sub Property Of	http://qudt.org/schema/qudt/quantityValue
Super Property Of	<ul style="list-style-type: none">• has height^{op}• has thickness^{op}• has width^{op}
Domain	product:ProductObject^c or product:Product^c

has dimensional deviation^{op}

IRI	http://w3id.org/CEON/demo/construction/hasDimensionalDeviation
Description	hasDimensionalDeviation is used to describe the dimensional deviation class of a product.
Sub Property Of	topObjectProperty^{op}
Domain	product:Product
Range	DimensionalDeviation^c

has distance to recycling plant^{op}

IRI	http://w3id.org/CEON/demo/construction/hasDistanceToRecyclingPlant
Sub Property Of	http://qudt.org/schema/qudt/quantityValue

has fire resistance rating^{op}

IRI	http://w3id.org/CEON/demo/construction/hasFireResistanceRating
Description	hasFireResistanceRating is used to represent the fire resistance rating of a product or product object.
Sub Property Of	topObjectProperty ^{op}
Domain	product:Product ^c or product:ProductObject ^c
Range	Fire resistance rating ^c

has height^{op}

IRI	http://w3id.org/CEON/demo/construction/hasHeight
Description	hasHeight is used to describe the height of a product or product object.
Sub Property Of	has dimension ^{op}

has market value for new product^{op}

IRI	http://w3id.org/CEON/demo/construction/hasMarketValueForNewProduct
Description	hasMarketValueForNewProduct is used to describe the market value of a new product.
Sub Property Of	quantity:hasMarketValue
Domain	product:Product

has market value for reused product^{op}

IRI	http://w3id.org/CEON/demo/construction/hasMarketValueForReusedProduct
Description	hasMarketValueForReusedProduct is used to describe the market value of a used product.
Sub Property Of	quantity:hasMarketValue
Domain	product:Product

has product quality^{op}

IRI	http://w3id.org/CEON/demo/construction/hasProductQuality
Description	hasProductQuality is used to represent the quality of a product or product object.
Sub Property Of	topObjectProperty^{op}
Domain	product:ProductObject^c or product:Product^c
Range	Product quality^c

has recycling potential^{op}

IRI	http://w3id.org/CEON/demo/construction/hasRecyclingPotential
Description	hasRecyclingPotential describes the amount of the product or product object that can potentially be recycled.
Sub Property Of	http://qudt.org/schema/qudt/quantityValue
Domain	product:Product^c or product:ProductObject^c

has recycling separability^{op}

IRI	http://w3id.org/CEON/demo/construction/hasRecyclingSeparability
Description	<ul style="list-style-type: none">• has recycling separability• hasRecyclingSeparability is used to describe the amount of the product or product object that can be separated for recycling.
Sub Property Of	http://qudt.org/schema/qudt/quantityValue
Domain	product:ProductObject^c or product:Product^c

has resistance to earth^{op}

IRI	http://w3id.org/CEON/demo/construction/hasResistanceToEarth
Description	hasResistanceToEarth describes the resistance to earth of a product.
Sub Property Of	http://qudt.org/schema/qudt/quantityValue
Domain	product:Product

has reuse deconstructability^{op}

IRI	http://w3id.org/CEON/demo/construction/hasReuseDeconstructability
Description	hasReuseDeconstructability is used to describe the amount of the product hat can be deconstructed for reuse.
Sub Property Of	http://qudt.org/schema/qudt/quantityValue
Domain	product:Product

has system weight^{op}

IRI	http://w3id.org/CEON/demo/construction/hasSystemWeight
Description	hasSystemWeight is used to express the system weight of a product or product object.
Sub Property Of	http://qudt.org/schema/qudt/quantityValue
Domain	product:ProductObject^c or product:Product^c

has thickness^{op}

IRI	http://w3id.org/CEON/demo/construction/hasThickness
Description	hasThickness is used to describe the thickness of a product or product object.
Sub Property Of	has dimension^{op}

has use span^{op}

IRI	http://w3id.org/CEON/demo/construction/hasUseSpan
Description	hasUseSpan describes the use span of a product or prodcut object.
Sub Property Of	http://qudt.org/schema/qudt/quantityValue
Super Property Of	<ul style="list-style-type: none">has use span remaining^{op}has use span total^{op}
Domain	product:ProductObject^c or product:Product^c

has use span remaining^{op}

IRI	http://w3id.org/CEON/demo/construction/hasUseSpanRemaining
Description	hasUseSpanRemaining describes the remaining use span of a product or product object.
Sub Property Of	has use span^{op}

has use span total^{op}

IRI	http://w3id.org/CEON/demo/construction/hasUseSpanTotal
Description	hasUseSpanTotal describes the total use span of a product or product object.
Sub Property Of	has use span^{op}

has width^{op}

IRI	http://w3id.org/CEON/demo/construction/hasWidth
Description	hasHeight is used to describe the height of a product or product object.
Sub Property Of	has dimension^{op}

policy on treatment^{op}

IRI	http://w3id.org/CEON/demo/construction/policyOnTreatment
Description	policyOnTreatment describes the policy for treatment of used product.
Sub Property Of	topObjectProperty^{op}
Domain	product:Product
Range	PolicyOnTreatment^c

Datatype Properties

has accessories^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasAccessories
Description	hasAccessories is used to provide a text representation of the accessories related to a product or product object.
Domain	product:Product^c <i>or</i> product:ProductObject^c
Range	xsd:string

has certificate^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasCertificate
Description	hasCertificate is used to link a product or product object to a certificate. The certificate is represented as a string, which could refer to the URL, name, or identifier of a known certificate.
Domain	product:Product^c <i>or</i> product:ProductObject^c
Range	xsd:string

has dismantling method^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasDismantlingMethod
Description	hasDismantlingMethod is used to represent a textual description of the dismantling method for a product or product object.
Sub Property Of	topDataProperty^{dp}
Domain	product:ProductObject^c <i>or</i> product:Product^c
Range	xsd:string

has installation date^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasInstallationDate
Description	hasInstallationDate is used to represent the installation date of a specific product object.
Sub Property Of	topDataProperty ^{dp}
Domain	product:ProductObject
Range	xsd:date

has packaging recommendations after dismantling^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasPackagingRecommendationsAfterDismantling
Description	hasPackagingRecommendationsAfterDismantling is used to represent a textual description of the packaging recommendations after a product or product object has been dismantled.
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^c or product:ProductObject ^c
Range	xsd:string

has product description^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasProductDescription
Description	<ul style="list-style-type: none">• has product description• hasProductDescription is used to represent a textual description of a product or product object.
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^c or product:ProductObject ^c
Range	xsd:string

has product id^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasProductID
Description	<ul style="list-style-type: none">• has product ID• hasProductID is used to represent the product ID of a product or product object.
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^c or product:ProductObject ^c
Range	xsd:int

has production date^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasProductionDate
Description	hasProductionDate is used to represent the production date of a specific product object.
Sub Property Of	topDataProperty ^{dp}
Domain	product:ProductObject
Range	xsd:date

has production site^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasProductionSite
Description	hasProductionSite is used to represent the site at which a given product or product object has been produced as a string. (This property could potentially be represented as an object property. The site could then potentially be treated as a location.)
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^c or product:ProductObject ^c
Range	xsd:string

has refurbishment method^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasRefurbishmentMethod
Description	hasRefurbishmentMethod is used to provide a textual description of the refurbishment process for a product or product object.
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^C or product:ProductObject ^C
Range	xsd:string

has takeback program from original manufacturer^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasTakeBackProgramFromOriginalManufacturer
Description	hasTakeBackProgramFromOriginalManufacturer is used to express whether the original manufacturer of a product has a take back program it (true/false).
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product
Range	xsd:boolean

has takeback program from other manufacturer^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasTakeBackProgramOtherManufacturer
Description	hasTakeBackProgramFromOtherManufacturer is used to express whether another manufacturer has a take back program (true/false) for a product.
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product
Range	xsd:boolean

has technical requirements for take back and recycling^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasTechnicalRequirementsForTakeBackForRecycling
Description	hasTechnicalRequirmentsForTakeBackForRecycling is used to represent a textual description of the technical requirements of a product or product object for take back and recycling.
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^c or product:ProductObject ^c
Range	xsd:string

has technical requirements for take back and reuse^{dp}

IRI	http://w3id.org/CEON/demo/construction/hasTechnicalRequirementsForTakeBackForReuse
Description	hasTechnicalRequirmentsForTakeBackForReuse is used to represent a textual description of the technical requirements of a product or product object for take back and reuse.
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^c or product:ProductObject ^c
Range	xsd:string

is contaminated^{dp}

IRI	http://w3id.org/CEON/demo/construction/isContaminated
Description	isContaminated is used to express whether a specific product object contains any contaminants (true/false).
Sub Property Of	topDataProperty ^{dp}
Domain	product:Product ^c or product:ProductObject ^c
Range	xsd:boolean

Annotation Properties

contributor^{ap}

IRI <http://purl.org/dc/terms/contributor>

created^{ap}

IRI <http://purl.org/dc/terms/created>

creator^{ap}

IRI <http://purl.org/dc/terms/creator>

description^{ap}

IRI <http://purl.org/dc/terms/description>

license^{ap}

IRI <http://purl.org/dc/terms/license>

title^{ap}

IRI <http://purl.org/dc/terms/title>

preferred namespace prefix^{ap}

IRI <http://purl.org/vocab/vann/preferredNamespacePrefix>

preferred namespace uri^{ap}

IRI <http://purl.org/vocab/vann/preferredNamespaceUri>

covers requirements^{ap}

IRI <http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#coversRequirements>

Namespaces

:

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

actor

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

actorODP

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

datasheet

<http://w3id.org/CEON/ontology/datasheet/>

dcterms

<http://purl.org/dc/terms/>

material

<http://w3id.org/CEON/ontology/material/>

odp

<http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#>

owl

<http://www.w3.org/2002/07/owl#>

product

<http://w3id.org/CEON/ontology/product/>

prov

<http://www.w3.org/ns/prov#>

quantity

<http://w3id.org/CEON/ontology/quantity#>

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

ap

Annotation Properties