

# Circular Economy Ontology Network (CEON) - Construction Module

## Metadata

### IRI

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

### Title

Circular Economy Ontology Network (CEON) - Construction Module

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### License

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### 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 <sup>c</sup>	
IRI	<a href="http://w3id.org/CEON/demo/construction/Condition">http://w3id.org/CEON/demo/construction/Condition</a>
In Range Of	<a href="#">hasCondition<sup>op</sup></a>
Super Class Of	<a href="#">FloorTileCondition<sup>c</sup></a>
Contaminant <sup>c</sup>	
IRI	<a href="http://w3id.org/CEON/demo/construction/Contaminant">http://w3id.org/CEON/demo/construction/Contaminant</a>
In Range Of	<a href="#">hasContaminant<sup>op</sup></a>

## Dimensional Deviation<sup>c</sup>

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

**In Range Of** [hasDimensionalDeviation<sup>op</sup>](#)

## Fire Resistance Rating<sup>c</sup>

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

**In Range Of** [hasFireResistanceRating<sup>op</sup>](#)

**Named Individuals**

[F30<sup>ni</sup>](#)  
[F60<sup>ni</sup>](#)

## Fire Resistance Relation<sup>c</sup>

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

**Sub Class Of** [actorODP:ResourceParticipation](#)

## Floor Tile<sup>c</sup>

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

**Sub Class Of** [product:Product](#)

## Floor Tile Condition<sup>c</sup>

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

**Sub Class Of** [Condition<sup>c</sup>](#)

**Named Individuals**

[bad\\_condition<sup>ni</sup>](#)  
[good\\_condition<sup>hi</sup>](#)  
[medium\\_condition<sup>ni</sup>](#)

## Floor Tile Condition Relation<sup>c</sup>

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

**Sub Class Of** [actorODP:ResourceParticipation](#)

## Galvanized Steel Material<sup>c</sup>

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

**Sub Class Of** [material:Material](#)

## Policy On Treatment<sup>c</sup>

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

**In Range Of** [policyOnTreatment<sup>op</sup>](#)

**Named Individuals**  
[refurbish<sup>ni</sup>](#)  
[reprocess<sup>ni</sup>](#)  
[reuse<sup>ni</sup>](#)

## Product Quality<sup>c</sup>

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

**In Range Of** [hasProductQuality<sup>op</sup>](#)

**Named Individuals**  
[product\\_quality\\_high<sup>ni</sup>](#)  
[product\\_quality\\_low<sup>ni</sup>](#)  
[product\\_quality\\_medium<sup>ni</sup>](#)

## Treatment Policy<sup>c</sup>

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

**Named Individuals**  
[refurbish<sup>ni</sup>](#)  
[reprocess<sup>ni</sup>](#)  
[reuse<sup>ni</sup>](#)

## Object Properties

### has condition<sup>op</sup>

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

**Sub Property Of** [topObjectProperty<sup>op</sup>](#)

**Domain** [product:Product<sup>c</sup>](#) or [product:ProductObject<sup>c</sup>](#)

**Range** [Condition<sup>c</sup>](#)

## has contaminant<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasContaminant">http://w3id.org/CEON/demo/construction/hasContaminant</a>
<b>Domain</b>	<a href="#">product:Product</a>
<b>Range</b>	<a href="#">Contaminant<sup>c</sup></a>

## has dimension<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasDimension">http://w3id.org/CEON/demo/construction/hasDimension</a>
<b>Sub Property Of</b>	<a href="#">http://qudt.org/schema/qudt/quantityValue</a>
<b>Super Property Of</b>	<ul style="list-style-type: none"><li>• <a href="#">hasHeight<sup>op</sup></a></li><li>• <a href="#">hasThickness<sup>op</sup></a></li><li>• <a href="#">hasWidth<sup>op</sup></a></li></ul>
<b>Domain</b>	<a href="#">product:ProductObject<sup>c</sup></a> or <a href="#">product:Product<sup>c</sup></a>

## has dimensional deviation<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasDimensionalDeviation">http://w3id.org/CEON/demo/construction/hasDimensionalDeviation</a>
<b>Sub Property Of</b>	<a href="#">topObjectProperty<sup>op</sup></a>
<b>Domain</b>	<a href="#">product:Product</a>
<b>Range</b>	<a href="#">DimensionalDeviation<sup>c</sup></a>

## has distance to recycling plant<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasDistanceToRecyclingPlant">http://w3id.org/CEON/demo/construction/hasDistanceToRecyclingPlant</a>
<b>Sub Property Of</b>	<a href="#">http://qudt.org/schema/qudt/quantityValue</a>

## has fire resistance rating<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasFireResistanceRating">http://w3id.org/CEON/demo/construction/hasFireResistanceRating</a>
<b>Sub Property Of</b>	<a href="#">topObjectProperty<sup>op</sup></a>
<b>Domain</b>	<a href="#">product:Product<sup>c</sup></a> or <a href="#">product:ProductObject<sup>c</sup></a>
<b>Range</b>	<a href="#">FireResistanceRating<sup>c</sup></a>

## has height<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasHeight">http://w3id.org/CEON/demo/construction/hasHeight</a>
<b>Sub Property Of</b>	<a href="#">hasDimension<sup>op</sup></a>

## has market value for new product<sup>op</sup>

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

**Sub Property Of** [quantity:hasMarketValue](#)

**Domain** [product:Product](#)

## has market value for reused product<sup>op</sup>

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

**Sub Property Of** [quantity:hasMarketValue](#)

**Domain** [product:Product](#)

## has product quality<sup>op</sup>

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

**Sub Property Of** [topObjectProperty<sup>op</sup>](#)

**Domain** [product:Product<sup>c</sup>](#) or [product:ProductObject<sup>c</sup>](#)

**Range** [ProductQuality<sup>c</sup>](#)

## has recycling potential<sup>op</sup>

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

**Sub Property Of** <http://qudt.org/schema/qudt/quantityValue>

**Domain** [product:ProductObject<sup>c</sup>](#) or [product:Product<sup>c</sup>](#)

## has recycling separability<sup>op</sup>

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

**Sub Property Of** <http://qudt.org/schema/qudt/quantityValue>

**Domain** [product:ProductObject<sup>c</sup>](#) or [product:Product<sup>c</sup>](#)

## has resistance to earth<sup>op</sup>

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

**Sub Property Of** <http://qudt.org/schema/qudt/quantityValue>

**Domain** [product:Product](#)

has reuse deconstructability<sup>op</sup>

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

**Sub Property Of** <http://qudt.org/schema/qudt/quantityValue>

**Domain** [product:Product](#)

has system weight<sup>op</sup>

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

**Sub Property Of** <http://qudt.org/schema/qudt/quantityValue>

**Domain** [product:Product<sup>c</sup>](#) or [product:ProductObject<sup>c</sup>](#)

has thickness<sup>op</sup>

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

**Sub Property Of** [hasDimension<sup>op</sup>](#)

has use span<sup>op</sup>

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

**Sub Property Of** <http://qudt.org/schema/qudt/quantityValue>

**Super Property Of**

- [hasUseSpanRemaining<sup>op</sup>](#)
- [hasUseSpanTotal<sup>op</sup>](#)

**Domain** [product:ProductObject<sup>c</sup>](#) or [product:Product<sup>c</sup>](#)

has use span remaining<sup>op</sup>

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

**Sub Property Of** [hasUseSpan<sup>op</sup>](#)

has use span total<sup>op</sup>

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

**Sub Property Of** [hasUseSpan<sup>op</sup>](#)

has width<sup>op</sup>

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

**Sub Property Of** [hasDimension<sup>op</sup>](#)

## policy on treatment<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/policyOnTreatment">http://w3id.org/CEON/demo/construction/policyOnTreatment</a>
<b>Sub Property Of</b>	<a href="#">topObjectProperty<sup>op</sup></a>
<b>Domain</b>	<a href="#">product:Product</a>
<b>Range</b>	<a href="#">PolicyOnTreatment<sup>c</sup></a>

## installation location<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/installationLocation">http://w3id.org/CEON/demo/construction/installationLocation</a>
<b>Sub Property Of</b>	<a href="#">topObjectProperty<sup>op</sup></a>

## Datatype Properties

### has accessories<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasAccessories">http://w3id.org/CEON/demo/construction/hasAccessories</a>
<b>Domain</b>	<a href="#">product:ProductObject<sup>c</sup> or product:Product<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

### has dismantling method<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasDismantlingMethod">http://w3id.org/CEON/demo/construction/hasDismantlingMethod</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:Product<sup>c</sup> or product:ProductObject<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

### has installation date<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasInstallationDate">http://w3id.org/CEON/demo/construction/hasInstallationDate</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:ProductObject</a>
<b>Range</b>	<a href="#">xsd:date</a>

## has packaging recommendations after dismantling<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasPackagingRecommendationsAfterDismantling">http://w3id.org/CEON/demo/construction/hasPackagingRecommendationsAfterDismantling</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:Product<sup>c</sup></a> or <a href="#">product:ProductObject<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

## has product description<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasProductDescription">http://w3id.org/CEON/demo/construction/hasProductDescription</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:ProductObject<sup>c</sup></a> or <a href="#">product:Product<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

## has product id<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasProductID">http://w3id.org/CEON/demo/construction/hasProductID</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:Product<sup>c</sup></a> or <a href="#">product:ProductObject<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:int</a>

## has production date<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasProductionDate">http://w3id.org/CEON/demo/construction/hasProductionDate</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:ProductObject</a>
<b>Range</b>	<a href="#">xsd:date</a>

## has production site<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasProductionSite">http://w3id.org/CEON/demo/construction/hasProductionSite</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:Product<sup>c</sup></a> or <a href="#">product:ProductObject<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

## has refurbishment method<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasRefurbishmentMethod">http://w3id.org/CEON/demo/construction/hasRefurbishmentMethod</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:ProductObject<sup>c</sup> or product:Product<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

## has take back program from original manufacturer<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasTakeBackProgramFromOriginalManufacturer">http://w3id.org/CEON/demo/construction/hasTakeBackProgramFromOriginalManufacturer</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:Product</a>
<b>Range</b>	<a href="#">xsd:boolean</a>

## has take back program other manufacturer<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasTakeBackProgramOtherManufacturer">http://w3id.org/CEON/demo/construction/hasTakeBackProgramOtherManufacturer</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:Product</a>
<b>Range</b>	<a href="#">xsd:boolean</a>

## has technical requirements for take back for recycling<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasTechnicalRequirementsForTakeBackForRecycling">http://w3id.org/CEON/demo/construction/hasTechnicalRequirementsForTakeBackForRecycling</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:Product<sup>c</sup> or product:ProductObject<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

## has technical requirements for take back for reuse<sup>dp</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasTechnicalRequirementsForTakeBackForReuse">http://w3id.org/CEON/demo/construction/hasTechnicalRequirementsForTakeBackForReuse</a>
<b>Sub Property Of</b>	<a href="#">topDataProperty<sup>dp</sup></a>
<b>Domain</b>	<a href="#">product:ProductObject<sup>c</sup> or product:Product<sup>c</sup></a>
<b>Range</b>	<a href="#">xsd:string</a>

is contaminated<sup>dp</sup>

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

**Sub Property Of** [topDataProperty<sup>dp</sup>](#)

**Domain** [product:Product<sup>c</sup>](#) or [product:ProductObject<sup>c</sup>](#)

**Range** [xsd:boolean](#)

construction year<sup>dp</sup>

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

**Sub Property Of** [topDataProperty<sup>dp</sup>](#)

**Range** [xsd:gYear](#)

has dismantling instruction<sup>dp</sup>

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

**Sub Property Of** [topDataProperty<sup>dp</sup>](#)

**Range** [xsd:anyURI](#)

## Annotation Properties

contributor<sup>ap</sup>

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

created<sup>ap</sup>

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

creator<sup>ap</sup>

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

description<sup>ap</sup>

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

license<sup>ap</sup>

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

<b>title</b>	<b>ap</b>
<b>IRI</b>	<a href="http://purl.org/dc/terms/title">http://purl.org/dc/terms/title</a>
<b>preferred namespace prefix</b>	<b>ap</b>
<b>IRI</b>	<a href="http://purl.org/vocab/vann/preferredNamespacePrefix">http://purl.org/vocab/vann/preferredNamespacePrefix</a>
<b>preferred namespace uri</b>	<b>ap</b>
<b>IRI</b>	<a href="http://purl.org/vocab/vann/preferredNamespaceUri">http://purl.org/vocab/vann/preferredNamespaceUri</a>
<b>covers requirements</b>	<b>ap</b>
<b>IRI</b>	<a href="http://www.ontologydesignpatterns.org/schemas/cpannotation schema.owl#coversRequirements">http://www.ontologydesignpatterns.org/schemas/cpannotation schema.owl#coversRequirements</a>

## Namespaces

:

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

**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