

# 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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### 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>
<u>In Range Of</u>	<a href="#">hasCondition<sup>op</sup></a>
<u>Super Class Of</u>	<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>
<u>In Range Of</u>	<a href="#">hasContaminant<sup>op</sup></a>

Dimensional Deviation <sup>c</sup>	
IRI	<a href="http://w3id.org/CEON/demo/construction/DimensionalDeviation">http://w3id.org/CEON/demo/construction/DimensionalDeviation</a>
<u>In Range Of</u>	<a href="#">hasDimensionalDeviation<sup>op</sup></a>

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

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

**In Range Of** [hasFireResistanceRating](#)  
op

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

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

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

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

## Floor Tile<sup>C</sup>

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

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

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

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**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>ni</sup>](#)  
[medium\\_condition<sup>ni</sup>](#)

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

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

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

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

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

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

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

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**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>

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**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>

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**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>

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

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

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

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

has contaminant<sup>op</sup>

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

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

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

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

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

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

**Super Property Of**

- [hasHeight<sup>op</sup>](#)
- [hasThickness<sup>op</sup>](#)
- [hasWidth<sup>op</sup>](#)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<b>IRI</b>	<a href="http://w3id.org/CEN/demo/construction/hasMarketValueForNewProduct">http://w3id.org/CEN/demo/construction/hasMarketValueForNewProduct</a>
<b><u>Sub Property Of</u></b>	<a href="#">quantity:hasMarketValue</a>
<b><u>Domain</u></b>	<a href="#">product:Product</a>



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

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasMarketValueForReusedProduct">http://w3id.org/CEON/demo/construction/hasMarketValueForReusedProduct</a>
<b><u>Sub Property Of</u></b>	<a href="#">quantity:hasMarketValue</a>
<b><u>Domain</u></b>	<a href="#">product:Product</a>

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

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

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

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasRecyclingPotential">http://w3id.org/CEON/demo/construction/hasRecyclingPotential</a>
<b><u>Sub Property Of</u></b>	<a href="http://qudt.org/schema/qudt/quantityValue">http://qudt.org/schema/qudt/quantityValue</a>
<b><u>Domain</u></b>	<a href="#">product:Product</a> <sup>c</sup> <i>or</i> <a href="#">product:ProductObject</a> <sup>c</sup>

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

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasRecyclingSeparability">http://w3id.org/CEON/demo/construction/hasRecyclingSeparability</a>
<b><u>Sub Property Of</u></b>	<a href="http://qudt.org/schema/qudt/quantityValue">http://qudt.org/schema/qudt/quantityValue</a>
<b><u>Domain</u></b>	<a href="#">product:ProductObject<sup>c</sup></a> or <a href="#">product:Product<sup>c</sup></a>

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

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

## has reuse deconstructability<sup>op</sup>

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

## has system weight<sup>op</sup>

<b>IRI</b>	<a href="http://w3id.org/CEON/demo/construction/hasSystemWeight">http://w3id.org/CEON/demo/construction/hasSystemWeight</a>
<b><u>Sub Property Of</u></b>	<a href="http://qudt.org/schema/qudt/quantityValue">http://qudt.org/schema/qudt/quantityValue</a>
<b><u>Domain</u></b>	<a href="#">product:Product</a> <sup>c</sup> <i>or</i> <a href="#">product:ProductObject</a> <sup>c</sup>

## has thickness<sup>op</sup>

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

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

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

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

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

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

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

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

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

has width<sup>op</sup>

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

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

policy on treatment<sup>op</sup>

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**IRI** <http://w3id.org/CEN/demo/construction/policyOnTreatment>

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

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

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

installation location<sup>op</sup>

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

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

## Datatype Properties

has accessories<sup>dp</sup>

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

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

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

has dismantling method<sup>dp</sup>

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

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

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

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

has installation date<sup>dp</sup>

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

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

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

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

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

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

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

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

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

## 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><u>Sub Property Of</u></b>	<a href="#">topDataProperty</a> <sup>dp</sup>
<b><u>Domain</u></b>	<a href="#">product:Product</a> <sup>c</sup> <i>or</i> <a href="#">product:ProductObject</a> <sup>c</sup>
<b><u>Range</u></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><u>Sub Property Of</u></b>	<a href="#">topDataProperty</a> <sup>dp</sup>
<b><u>Domain</u></b>	<a href="#">product:ProductObject</a> <sup>c</sup> <i>or</i> <a href="#">product:Product</a> <sup>c</sup>
<b><u>Range</u></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><u>Sub Property Of</u></b>	<a href="#">topDataProperty</a> <sup>dp</sup>
<b><u>Domain</u></b>	<a href="#">product:ProductObject</a>
<b><u>Range</u></b>	<a href="#">xsd:date</a>

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

is contaminated<sup>dp</sup>

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

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

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

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

construction year<sup>dp</sup>

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

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

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

has dismantling instruction<sup>dp</sup>

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

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

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

## Annotation Properties

contributor<sup>ap</sup>

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**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>

title<sup>ap</sup>

---

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

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

## 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/CE0N/ontology/material/>

**odp**

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

**owl**

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

**product**

<http://w3id.org/CE0N/ontology/product/>

**prov**

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

**quantity**

<http://w3id.org/CE0N/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	Data type Properties
ap	Annotation Properties