

Flat roof

A roof is the structure to the top part of a building, it protects the building against the effects of weather.

A flat roof is a roof having no slope, or one with only a slight pitch so as to drain rainwater.

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|------------------------------|---------------------------|----------------|
| IfcElementType | IfcRoof | =IfcExportAs |
| IfcPredefinedType | FLAT_ROOF | =IfcExportType |
| Suggested Filename: | Roof_Flat | |
| Suggested LOD (Design Model) | 300 | |
| Suggested Primary Discipline | Architectural; Structural | |

Source

Property Categories

Classification

COBie

Admin data

Masterformat

05 33 23 : Aluminium Roof Decking

IFC 2x3

Code compliance data

05 42 23 : Cold-Formed Metal Roof Joist Framing

IFC4 Add2

Construction logistics data

06 15 16 : Wood Roof Decking

NATSPEC BIM

Cost data

05 31 23 : Steel Roof Decking

Facilities management data

NatspecWorksection

0341 Structural steelwork

Geometric data

0342 Light steel framing

Manufacturer data

0381 Structural timber

Performance data

0382 Light timber framing

Scheduling data

Spatial and location data

Omniclass Table 21 Elements

21-02 10 20 : Roof Construction

Specification data

Omniclass Table 22 Work

22-05 31 23 : Steel Roof Decking

Sustainability data

Results

22-05 33 23 : Aluminum Roof Decking

22-05 42 23 : Cold-Formed Metal Roof Joist Framing

22-06 15 16 : Wood Roof Decking

Omniclass Table 23 Products

23-13 35 23 13 : Structural Roof Decks

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| Uniclass Elements | EF_30_10 : Roofs |
| Uniclass Products | Pr_20_65_60 : Panelled and framed structures |
| Uniclass Systems | Ss_30_12 : Flat roof, floor and deck structure systems |
| Unifomat | B1020 : Roof Construction |

| Property | Source | Description |
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| Admin data | | |
| CreatedBy | NATSPEC BIM | The name of the person, organisation or library provider that created the object. |
| CreatedByURL | NATSPEC BIM | URL hyperlink to the object creator's website. |
| ModifiedIssue | NATSPEC BIM | To record the last date of issue (version or revision) of the object within an object library. Add the date in the following format <yyyymmdd.no> where the 'no' suffix is equal to the number of times the object has been issued on that date. For example 20180316.01. |
| Reference | PSet_RoofCommon (IFC4) PSet_RoofCommon (IFC2x3) | Reference ID for a specified type in a project (e.g. type 'A-1'). Also known as Construction type. Provide as an alternative to the name of the object type, if software does not support object types. |
| Code compliance data | | |
| EgressRequirement | NATSPEC BIM | |
| FireRating | NATSPEC BIM PSet_RoofCommon (IFC4) PSet_RoofCommon (IFC2x3) | Fire rating of object. Also known as the FRL (Fire Resistance Level) e.g. 60/60/60. |
| Construction logistics data | | |
| ConstructionMethod | NATSPEC BIM | |
| Status | PSet_RoofCommon (IFC4) | Status of the object, predominately used in renovation or retrofitting projects. Complete value with: NEW, EXISTING, DEMOLISH, TEMPORARY, OTHER, NOTKNOWN or UNSET |
| Cost data | | |
| AdditionalTax | NATSPEC BIM | |
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| AssemblyCost | NATSPEC BIM | |
| AssetAccountingType | Pset_Asset (IFC4) Pset_Asset (IFC2x3) | Asset type for accounting purposes. Complete value with: FIXED, NONFIXED, OTHER, NOTKNOWN or UNSET (PEnum_AssetAccountingType) |
| AssetInsuranceType | Pset_Asset (IFC4) Pset_Asset (IFC2x3) | Type of insurance rating. Complete value with: PERSONAL, REAL, OTHER, NOTKNOWN or UNSET (PEnum_AssetInsuranceType) |
| AssetTaxType | Pset_Asset (IFC4) Pset_Asset (IFC2x3) | Type of taxation group. Complete value with: CAPITALISED, EXPENDED, OTHER, NOTKNOWN or UNSET (PEnum_AssetTaxType) |
| ConceptualCost | NATSPEC BIM | |
| CostOverRun | NATSPEC BIM | |
| FutureCostAssumptions | NATSPEC BIM | |
| InstallationCost | NATSPEC BIM | |
| InstalledCost | NATSPEC BIM | |
| PurchaseInformation | NATSPEC BIM | |
| RecordedActualCost | NATSPEC BIM | |
| TotalOwnershipCost | NATSPEC BIM | |
| Facilities management data | | |
| AccessibilityPerformance | COBie_ElementType COBie_Specification | Accessibility issue(s) that product satisfies. |
| AcquisitionDate | Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Date the item was purchased (Format: YYYY-MM-DD). |
| AssessmentCondition | NATSPEC BIM Pset_Condition (IFC4) | Overall condition rating based on assessment. Rating scale to be agreed prior (e.g. Good, OK , Poor). |
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| AssessmentDate | Pset_Condition (IFC4) | Date of overall condition assessment (Format: YYYY-MM-DD). |
| AssessmentDescription | Pset_Condition (IFC4) | Qualitative description of the condition. |
| AssetIdentifier | COBie_Component | Alternative identifier for specific component, used as defined by contract. |
| AssetType | COBie_AssetCOBie_ElementType | Complete value with: 'Fixed' or 'Movable' |
| Category | COBie | Classification code. |
| CodePerformance | COBie_ElementTypeCOBie_Specification | Code compliance requirement(s) that product satisfies. |
| ComponentID | NATSPEC BIM | |
| Constituents | COBie_ElementTypeCOBie_Specification | Details of various parts of the object. |
| Description | COBie | Concise description of the object. |
| DurationUnit | COBie | Units used to record expected life duration. Typically 'year'. |
| Exclusions | Pset_Warranty (IFC4)Pset_Warranty (IFC2x3) | Items, conditions or actions that may be excluded from the warranty or that may cause the warranty to become void. |
| ExpectedLife | NATSPEC BIMCOBie | Expected serviceable life of object. |
| Features | COBie_ElementTypeCOBie_Specification | Primary features or important characteristics of the product. |
| Grade | COBie_ElementTypeCOBie_Specification | Standard grading(s) to which the product corresponds. |
| InstallationDate | NATSPEC BIMCOBie_Component | Format: YYYY-MM-DD. |
| IsExtendedWarranty | Pset_Warranty (IFC4)Pset_Warranty (IFC2x3) | Complete value with: TRUE or FALSE (IfcBoolean) |
| ModelNumber | COBie | Model number or designator of the product model (or product line) as assigned by the manufacturer. |
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| Name | COBie | Unique human readable name for object type. |
| ReplacementCost | NATSPEC BIM COBie_EconomicImpactValues COBie_ElementType | Cost to replace product. |
| Shape | COBie_ElementTypeCOBie_Specification | Characteristic shape of the object. e.g. Square. |
| SustainabilityPerformance | COBie_ElementTypeCOBie_Specification | Sustainability issue(s) that product satisfies. |
| TagNumber | COBie_Component | Tag number for product or equipment at installation. |
| WarrantyContent | NATSPEC BIMPset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Description of what is included in warranty. |
| WarrantyDescription | COBie_Warranty | Concise description of warranty content and any items, conditions or actions that are excluded from warranty or that will cause the warranty to become void. |
| WarrantyDurationLabor | COBie_Warranty | Duration of labour warranty. |
| WarrantyDurationParts | COBie_Warranty | Duration of parts warranty. |
| WarrantyDurationUnit | COBie | Units used to record warranty durations. Typically 'year'. |
| WarrantyEndDate | NATSPEC BIMPset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Format: YYYY-MM-DD. |
| WarrantyGuarantorLabor | COBie_Warranty | email address for organisation responsible for labour warranty. |
| WarrantyGuarantorParts | COBie_Warranty | email address for organisation responsible for parts warranty. |
| WarrantyIdentifier | Pset_Warranty (IFC4)Pset_Warranty (IFC2x3) | Identifier assigned to warranty. |
| WarrantyPeriod | Pset_Warranty (IFC4)Pset_Warranty (IFC2x3) | |
| WarrantyStartDate | NATSPEC BIMCOBie_Component Pset_Warranty (IFC4)Pset_Warranty | Format: YYYY-MM-DD. |

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| | (IFC2x3) | |
| Geometric data | | |
| GrossArea | Qto_RoofBaseQuantities (IFC4) NATSPEC BIM | |
| GrossVolume | NATSPEC BIM | |
| Height | NATSPEC BIM | |
| Length | NATSPEC BIM | |
| NetArea | Qto_RoofBaseQuantities (IFC4) | Takes all openings into account. |
| NominalHeight | COBie_ElementTypeCOBie_Specification | Typically the vertical characteristic dimension of the object. |
| NominalLength | COBie_ElementTypeCOBie_Specification | Typically the primary or larger of the two perpendicular horizontal dimensions of the object. |
| NominalWidth | COBie_ElementTypeCOBie_Specification | Typically the secondary or smaller of the two perpendicular horizontal dimensions of the object. |
| PitchAngle | NATSPEC BIM | Angle of item to the horizontal |
| ProjectedArea | Qto_RoofBaseQuantities (IFC4) PSet_RoofCommon (IFC2x3) | Total gross area of outer surfaces of roof, projected to ground. The sum of all projected roof gross areas. Openings and cut-outs are not taken into account. |
| Size | COBie_ElementTypeCOBie_Specification | |
| TotalArea | PSet_RoofCommon (IFC2x3) | |
| TotalSurfaceArea | IfcRoof (IFC2x3) | |
| Width | NATSPEC BIM | |
| Manufacturer data | | |
| Accessories | NATSPEC BIM | Details of available accessories. |

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| ArticleNumber | Pset_ManufacturerTypeInformation (IFC4) Pset_ManufacturerTypeInformation (IFC2x3) | Reference applied to product, according to scheme for article number definition defined by manufacturer. Often used as purchasing number. |
| AssemblyPlace | NATSPEC BIM Pset_ManufacturerTypeInformation (IFC4) | Defines where assembly is to take place. Complete value with: SITE, FACTORY or NOTDEFINED (IfcAssemblyPlaceEnum) |
| BarCode | COBiePset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Bar code given to occurrence of the product. |
| BatchReference | Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Identity of the batch from which the occurrence of the product is taken. |
| Defects | NATSPEC BIM | To record any defects found. |
| GlobalTradeItemNumber | Pset_ManufacturerTypeInformation (IFC4) | GTIN is an identifier for trade items developed by GS1 (www.gs1.org). |
| Manufacturer | COBieNATSPEC BIM Pset_ManufacturerTypeInformation (IFC4) Pset_ManufacturerTypeInformation (IFC2x3) | Name of the manufacturer (or assembler). |
| ManufacturerURL | NATSPEC BIM | URL hyperlink to the manufacturer's website. |
| ModelLabel | Pset_ManufacturerTypeInformation (IFC4) | The descriptive model name of the product model (or product line) as assigned by the manufacturer of the manufactured item. |
| ModelLabel | Pset_ManufacturerTypeInformation (IFC2x3) | The model number and/or unit designator assigned by the manufacturer of the manufactured item. |
| ModelReference | Pset_ManufacturerTypeInformation (IFC4) | The model number or designator of the product model (or product line) as assigned by the manufacturer of the manufactured item. |
| ModelReference | Pset_ManufacturerTypeInformation (IFC2x3) | The name of the manufactured item as used by the manufacturer. |
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| OrderNumber | NATSPEC BIM | |
| PointOfContact | Pset_Warranty (IFC4) Pset_Warranty (IFC2x3) | Organization that should be contacted for action under the terms of the warranty. |
| ProductionYear | Pset_ManufacturerTypeInformation (IFC4) Pset_ManufacturerTypeInformation (IFC2x3) | |
| SerialNumber | COBiePset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3) | Serial number assigned to an occurrence of a product. |
| Performance data | | |
| AcousticRating | NATSPEC BIM Set_RoofCommon (IFC4) | Acoustic rating for the object. Indicates the sound transmission resistance of the object by an index ratio. |
| DeadLoad | NATSPEC BIM | |
| Deflection | NATSPEC BIM | |
| LiveLoad | NATSPEC BIM | |
| PointLoadCapacity | NATSPEC BIM | |
| RValue | NATSPEC BIM | |
| RadiationResistance | NATSPEC BIM | |
| ThermalTransmittance | NATSPEC BIM Set_RoofCommon (IFC4) | Thermal transmittance coefficient (U-Value). |
| Scheduling data | | |
| FabricationTime | NATSPEC BIM | |
| InstallationSequence | NATSPEC BIM | |
| InstallationTime | NATSPEC BIM | |

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| LeadTime | NATSPEC BIM | |
| Spatial and location data | | |
| FloorID | NATSPEC BIM | |
| GISTag | NATSPEC BIM | |
| GPSTag | NATSPEC BIM | |
| SpaceID | NATSPEC BIM | |
| Specification data | | |
| Color | COBie_ElementTypeCOBie_Specification | |
| ExteriorFinish | NATSPEC BIM | |
| Finish | COBie_ElementTypeCOBie_Specification | Specification of surface finish. |
| InteriorFinish | NATSPEC BIM | |
| IsExternal | PSet_RoofCommon (IFC4) PSet_RoofCommon (IFC2x3) | Complete value with: TRUE or FALSE (IfcBoolean) |
| LoadBearing | PSet_RoofCommon (IFC4) | Indicates if object is intended to carry loads. Complete value with: TRUE or FALSE (IfcBoolean) |
| Material | NATSPEC BIMCOBie_ElementType COBie_Specification | |
| SpecificationCode | NATSPEC BIM | |
| SpecificationSystem | NATSPEC BIM | |
| SpecificationTitle | NATSPEC BIM | |
| Sustainability data | | |
| CarbonFootprint | NATSPEC BIM | |

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| ItemIsPartiallyRecycled | NATSPEC BIM | |
| ItemIsRecycled | NATSPEC BIM | |
| PostConsumerRecycledContent | NATSPEC BIM | |
| PostIndustrialRecycledContent | NATSPEC BIM | |
| PreConsumerRecycledContent | NATSPEC BIM | |
| RecycledContent | NATSPEC BIM | |