

续表 D. 12. 1

类型	EXPRESS描述
侧表面 (IfeSurfaceSide)	TYPE IicSurfaceSde -ENUMERATION OF(POSITIVE, NBGATIVE, BOTH); END_TYPE
颜色选择 (IfeColour)	TYPE IlicColour =SELECT(IfeColourSpecification, fcPreDefinedColcur); END_TYPE
颜色或因子选择 (HeColourOrFactor)	TYPE IlcCdourOrFactor =SELECT 《 lfcNormalisesiRatioMeasure, lfeColourRgb); END_TYPE
曲线字体或比例化 曲线字体选择 (IfeCurveFont OrSaledCurve FontSdlect)	TYPE IfeCarve FoneOrScaledCurveFontSeled =SELECT(lfeCurveSeyleFontSelect, lfeCurveSeyleFontAndScaling); END_TYPE
曲线样式字体选择 (HeCurveSryle FontSlect)	TYPE HeCurveStylkFontSelect =SELECT(lfcPreDefinedCurveFont, lfeCurve:SiyleFont); END_TYPE
填充样式选择 (IfeFillStyleSdeet)	TYPE IfcFitStyleSelect =SELECT(lfkFill AreaSryleHatching feFillAreaSeyle Tiles. lfeExternallyDefinedHatchSeyle. lfeColour); END_TYPE
影线距离选择 (IfcHatchLine DstanceSeleet)	TYPE HeHatchL imDstaneeSeket=SELBXT(IfePositiveLengthMeasure, lfcVextor); END_TYPE
表达样式选择 (IkFitsoatathm StykSdect)	TYPE NcPresentationStyleSeleet =SEI.ECT(lfeNullSeyle, lfcCurveSryle, lkFILAmAyle, lkeTextStyle, lkeSurfaceSeyle); END_TYPE
尺寸选择 (IfeSiaeSeleet)	TYPE IfeSineSdeet =SEI.FCT(TfeRatioMeasure, lfeLengthMeasure, fkDescriptiveMknsure, fePositiveLengthMeasure, lfeNormalised RstioMessure, KcPoitiveRntioMeasure), END_TYTE
反射高光选择 (IfeSpecular HighlighuSleet)	TYPE IfcSpecularHighlightSdect -SELECT(lfeSpecularExponent. lfcSpecularRoughness): END_TYPE
样式分配选择 (HeSeyleAssigrment Select)	TYPE IieSuyleAssignmentSlect -SELECT(lfcPresentationStyleAssignment, lfcPresentationSeyle) RND_TVPR

续表D. 12. 1

类型	EXPRESS描述
表面样式元素选择 (HfeSurfaceStyle FmmtSelect)	<pre> TYPE HeSurfaceStyleElementSelect=SELECT(IfeSurfaceStyleShading, IfeSurfaceStyleLighting, HeSurfaceStyleWithTextures, HeExternallyDefinedSurfaceStyle, HeSurfaceStyleRefraction); END_TYPE </pre>
文本字体选择 (HeTextFontSelect)	<pre> TYPE IeTextFontSelect =SELECT(IicPreDefinedTextFont, HcExternallyDefinedTextFont); END_TYPE </pre>

D. 12. 2 展示外观资源实体的 EXPRESS 描述应按表 D. 12. 2 的规定采用。

表 D. 12. 2 展示外观资源实体的 EXPRESS 描述

实体	EXPRESS描述
二进制大对象纹理 (IKcBlobTexture)	<pre> ENTITY HcPkhTexture SUBTYPE OF IfeSurfaceTexture; RasterFormat , IfcIdentifier: RasterCode, BINARY; WHERE SupportedRasterFormat ;SELF.RasterFormat IN CBMF, 'JPG, 'GIF, 'PNG]; RasterCodeByteStream: BLENGTH(RasterCode)MOD8=0; END_ENTITY </pre>
红绿蓝颜色 (IfeColourRgh)	<pre> ENTITY IfeColourRgb SUBTYPE OF IfeColourSpecification; Red, IfeNormalisedRatioMeasure; Green: IfeNormalised RatioMeasure; Blue: feNormalisedRatioMeasures END_ENTITY </pre>
红绿蓝颜色列表 (IfeColourRghList)	<pre> ENTITY HeColourRgbList SUBTYPE OF IfcPresentationItem; ColourList; LIST[1:?] OF LIST [3:3] OF IfcNormalisesRatioMeasure; END_ENTITY </pre>
醒负分量 (IfeColour Specification)	<pre> ENTITY HfeColourSpecification ARSTRACT SUPERTYPE OF (IfeColourRgb) SUBTYPE OF IfcPresentationItem; Name :OPTIONAL IfcLabel; END_ENTITY </pre>
曲线样式 (IfcCurveStyle)	<pre> ENTITY HeCurveStyle SUBTYPE OF IfcPresentationStyle; CurveFont:OPTIONAL. HeCurveFontOkSeakdCurveFontSdeet; CurveWidth;OPTIONAL. IfcSineSelect; CurveColour:OPTIONAL IfcColour; ModelOrDraughting:OPTIONAL. BOOLEAN; WHERE MeasureOfWidth; (NOT (EXISTS (CurveWidth))) OR (IFCMEASURERESOURCE. IFCPOSITIVELENGTHMEASURE IN TYPEOF (CurveWidth)) OR (IFCMEASURERESOURCE. IFCDESCRIPTIVEMEASURE IN TYPEOF (CurveWidth)) AND (CurveWidth = 'by Layer')); IdentifiableCurveStyle; EXISTS (CurveFont) OR EXISTS (CurveWidth) OR EXISTS (CurveColour); END_ENTITY </pre>
曲线样式字体 (IfeCurveStyleFont)	<pre> ENTITY IfcCurveStyleFont SUBTYPE OF IfcPresentationItem; Name:OPTIONAL. IfcLabel; PatternList:LIST[1:?] OF IfcCurveStyleFontPattern; END_ENTITY </pre>

续表D.12.3

实体	EXPRESS描述
曲线样式字体比例 (IfcCurveStyleFontAndScaling)	<pre> ENTITY IfcCurveStyleFontAndScaling SUBTYPE OF IfcPresentationItem; Name: OPTIONAL feLabel; CurveFont: IfcCurveStyleFontSelect; CurveFontScaling: IfcPositiveRatioMeasure; END_ENTITY </pre>
曲线样式字体模板 (IfcCurveStyleFontPattern)	<pre> ENTITY IfcCurveStyleFontPattern SUBTYPE OF IfcPresentationItem; VisibleSegmentLength: feLengthMeasure; InvisibleSegmentLength: hcPositiveLengthMeasure; WHERE VisibleLengthGreaterEqualZero: VisibleSegmentLength >= 0; END_ENTITY </pre>
制图预定义颜色 (IfcDrawingPreDefinedColour)	<pre> ENTITY IfcDrawingPreDefinedColour SUBTYPE OF IfcPreDefinedColour; WHERE PreDefinedColourNames: SELF.IfcPreDefinedItem.Name IN [black, red, green, blue, yellow, magenta, cyan, white] by layer; END_ENTITY </pre>
制图预定义曲线字体 (IfcDrawingPreDefinedCurveFont)	<pre> ENTITY IfcDrawingPreDefinedCurveFont SUBTYPE OF IfcPreDefinedCurveFont; WHERE PreDefinedCurveFontNames: SELF.IfcPreDefinedItem.Name IN [continuous, chain, chain double dash, dashed, dotted] by layer; END_ENTITY </pre>
外部定义填充样式 (IfcExternallyDefinedHatchStyle)	<pre> ENTITY IfcExternallyDefinedHatchStyle SUBTYPE OF IfcExternalReference; END_ENTITY </pre>
外部定义表面样式 (IfcExternallyDefinedSurfaceStyle)	<pre> ENTITY IfcExternallyDefinedSurfaceStyle SUBTYPE OF IfcExternalReference; END_ENTITY </pre>
外部定义文本字体 (IfcExternallyDefinedTextFont)	<pre> ENTITY IfcExternallyDefinedTextFont SUBTYPE OF IfcExternalReference; END_ENTITY </pre>
填充区域样式 (IfcFillAreaStyle)	<pre> ENTITY IfcFillAreaStyle SUBTYPE OF IfcPresentationStyle; FillStyles: SET [1..?] OF IfcFillStyleSelect; ModelOfDrawing: OPTIONAL BOOLEAN; WHERE MaxOneColour: SIZEOF (QUERY (Style < . SELF.FillStyles IFCPRESENTATIONAPPEARANCE SOURCE IFCCOLOR IN TYPEOF (Style))) <= 1; MaxOneExtHatchStyle: SIZEOF (QUERY (Style < . SELF.FillStyles IFCPRESENTATIONAPPEARANCE RESOURCE IFCEXTERNALLYDEFINEDHATCHSTYLE IN TYPEOF (Style))) <= 1; ConsistentHatchStyleDefinition: IfcCorrectFillAreaStyle (SELF.FillStyles); END_ENTITY </pre>
填充区域样式阴影 (IfcFillAreaStyleHatching)	<pre> ENTITY IfcFillAreaStyleHatching SUBTYPE OF IfcGeometricRepresentationItem; HatchLineAppearance; IfcCurveStyle; StartOfNextHatchLine: IfcHatchLineDistanceSelect; PointOfReferenceHatchLine: OPTIONAL IfcCartesianPoint; PatternStart: OPTIONAL IfcCartesianPoint; HatchLineAngle: IfcPlaneAngleMeasure; WHERE PatternStart2D: NOT (EXISTS (PatternStart)) OR (PatternStart.Dim = 2); RefHatchLine2D: NOT (EXISTS (PointOfReferenceHatchLine)) OR (PointOfReferenceHatchLine.Dim = 2); END_ENTITY </pre>

续表D. 12.2

实体	EXPRESS描述
填充区拼贴式样 (HcFillAreaStyle Tiles)	<pre> ENTITY HeFillAreaStyle Tiles SUBTYPE OF IfeGeometricRepresentationItem; TilingPattern:LIST [2:2]OF IfeVector; TilingStyle:SET [1:?]OF IfeStyleItem; TilingScale:IfPositiveRatioMeasureer END_ENTITY </pre>
图像纹理 (IfImage Texture)	<pre> ENTITY IfImage Texture SUBTYPE OF IfcSurfaceTextures URLReference:HcURIReference; END_ENTITY </pre>
颜色映射索引 (IfIndexedColour Map)	<pre> ENTITY IfIndexedColourMap SUBTYPE OF IfcPresentationItem; MappedTo:IfTessellatedFaceSet; Overrides:OPTIONAL IfcSurfaceStyleShadings Colours, IfColourRgbList; ColourIndex:LIST [1:?]OF INTEGER; END_ENTITY </pre>
纹理映射索引 (IfIndexedTexture Map)	<pre> ENTITY IfIndexedTextureMap ABSTRACT SUPERTYPE OF (IfIndexedTriangleTextureMap) SUBTYPE OF IfcTextureCoordinate; MappedTo:IfTessellatedFaceSet; TextureCoordinates:IfTextureVertexList; END_ENTITY </pre>
三角纹理映射索引 (IfIndexedTriangle TextureMap)	<pre> ENTITY IfIndexedTriangleTextureMap SUBTYPE OF IfIndexedTextureMap; TextureCoordinateIndex:OPTIONAL LIST [1:?]OF INTEGER [X,R]OF INTGFR, END_ENTITY </pre>
像素纹理 (HcPixelTexture)	<pre> ENTITY HcPixelTexture SUBTYPE OF HcSurfaceTexture; Width:IfInteger; Height:IfInteger; ColourComponents:IfInteger; PixelList:LIST [1,?]OF BINARY(32); WHERE MinPixelInS:Width >=1; MinPixelInT, Height >=1; NumberOfColours:(1<=ColourComponents <=4): SizeOfPixelList:SIZEOF(PixelList)-(Width * Height) PixelAsByteAndSumLength, SIZEOF(QUERY(temp< * i (LENGTH(temp) MOD 8=0) AND (LENGTH(temp)=LENGTH(Fixes[i])))=SIZEOF(Pixel)); END_ENTITY </pre>
预定义颜色 (IfPreDefinedColour)	<pre> ENTITY IfPreDefinedColour ABSTRACT SUPERTYPE OF (IfDraftingPreDefinedColour) SUBTYPE OF HcPreDefinedItem; END_ENTITY </pre>
预定义曲线字体 (IfPreDefinedCurve Font)	<pre> ENTITY IfPreDefinedCurveFont ABSTRACT SUPERTYPE OF (IfDraftingPreDefinedCurveFont) SUBTYPE OF HcPreDefinedItem; END_ENTITY </pre>
预定义项 (IfPreDefinedItem)	<pre> ENTITY IfPreDefinedItem ABSTRACT SUPERTYPE OF (ONEOF:IfPreDefinedColour, IfPreDefinedCurveFont, IfPreDefinedTextFont) SUBTYPE OF HcPresentationItem; Name, HcLabel; END_ENTITY </pre>

续表D.12.3

实体	EXPRESS描述
预定义文本字体 (HePreDefinedText Font)	ENTITY IfcPreDefined TextFont ABSTRACT SUPERTYPE OF (IfcTextStyltFontMode) SUBTYPE OF IfcPreDefinedItem END_ENTITY
表达样式 (IfcPresentation Style)	ENTITY IfcPresentationStyle ABSTRACT SUPERTYPEOF (ONFOF (I6CurveStyle, IfeFillAreaStyle, HeSurfaceStyle. IfeTextStyle)); Name:OPTIONAL. HeLabel; END_ENTITY
表达样式分配 (IfcPresentation Style Assignment)	ENTTTY I8cPresentationStyleAssignmentt Styles, SET [1,?]OF HePresentationStylsR-det, END_ENTTTY
样式项 (IfeSryledItem)	ENTITY IfeStyledItem SUBTYPE OF IkcRepresentationItem; Item:OPTIONAL IfcRepresentationItem; Styles:SET [1:?]OF HeStyleAssignmentSlect; Name:OPTIONAL. IfeLabel; WHERE ApplicableItem;NOTC TFCPRESENTATIONAPPEARANCERESOURCE. IFCSTYLFDITEM IN TYPEOF (Item)); END_ENTITY
表面样式 (IfeSurfaceStyle)	ENTITY IfeSurfaceStyle SUBTYPE OF IfcPresentationStyle; Sde:IfcSurfaceSide; Styles:SET[1:5]OF IfeSurfaceStyleElementSelect; WHERE MaxOneShading:SIZEOF (QUERY (Style< • SELF. Styles I' IFCPRESENTATIONAPPEARANCERES OURCE IFCSURFACESTYLESHADING'N TYPEOF (Style)))<=1. MaxOneLighting:SIZEOF (QUERY (Style< • SEIF. Styles I' IFCPRESENTATIONAPPEARANCERFS OURCE. IFCSURFACESTYLELJGHTINGIN TYPEOF (Style)))<-1; MaxOneRefraction;SIZEOF (QLERY (Styk< • SELF. Styles I' IFCPRESENTATIONAPPEARANCERES OURCE. IFCSURFACESTYLELREFRACTWN IN TYPEOF (Style)))<-1: MaxOneTextures;SIZEOF (QUERY (Style< • SELF. Styles I' IFCPRESENTATIONAPPEARANCRES OURCE. IFCSURFACESTYLEWITHTEXTURES IN TYPEOF (Style)))<=1: MaxOneExternDfined:SLZEOF (QUERY (Style< • SEIF. Styles I' IFCPRESENTATIONAPPEARANCERE SOURCE IFCEXTERNALLYDEFINESURFACESTYLE IN TYPEOF (Style)))<=1: END_ENTITY
表面光照样式 (IfeSurfaceStyle Lighting)	FNITTY IeSufacSylelelghaing SUBTYPE OF IkcPresentationItem; Dffuse TansmissionCdour :IfeColourRgb; DffuseReflectionColour, IfeColourRgb; TmnsmissionColour, IfcColourRgb; RefleetanceColour :frColourRgb; END_ENTTTY
表面折射样式 (IfeSurfaceStyle Refraction)	ENTITY IfeSurfaceStyleRefraction SUBTYPE OF IkcPresentationItem; RefmctionIndex:OPTIONAL IfcReal; DispersionFactor:OPTIONAL IfcReal; END_ENTITY
表面渲染样式 (IfeSurfaceStyle Rendering)	ENTTTY IfcSurfaceStyleRendering SUBTYPE OF IfcSurfaceStyleShadingi Transparency:OPTIONAL. Ifc NormalisedhatioMeasurer DiffuseCdour:OPTIONAL. HeColourOMFator: TmnsmissionColour;OPTIONAL IfcColourOrFactor; Dffuse TmnsmissionCdour,OPTIONAL IfColourOrFactor ReflectionColour;OPTIONAL. HeColourOrFator; SpecularColour:OPTIONAL IfeCdourOrFuctor; SpecularHighlight:OPTIONAL. HeSpeeularHighlightSelect; ReflectanceMethod, IfcReflectanceMethodEnum; END_ENTITY

续表D. 12. 2

实体	EXPRESS描述
表面明暗样式 (IfcSurfaceStyleShading)	ENTITTY IfcSurfaceStyleShading SUPERTYPE OF (IfcSurfaceStyleRendering) SUBTYPE OF IfcPresentationItem; SurfaceColour:IfcColourRgb; END_ENTITY
表面纹理样式 (IfcSurfaceStyleWithTextures)	ENTITTY IfcSurfaceStyleWithTextures SUBTYPE OF IfcPresentationItem; Textures:LIST [1:?]OF IfcSurfaceTexture END_ENTITY
表面纹理 (IfcSurfaceTexture)	ENTITY IfcSurfaceTexture ABSTRACT SUPERTYPE OF (ONEOF (IfcSurfaceTexture, IfcSurfaceTexture)) SUBTYPE OF IfcPresentationItem; RepeatS:BOOLEAN; RepeatT:BOOLEAN; Mode:OPTIONAL IfcIdentifier Texture Transform:OPTIONAL IfcCartesianTransformationOperator2D; Parameter:OPTIONAL LIST [1,?]OF IfcIdentifier; INVERSE IsMappedBy:SET [0:?]OF IfcTextCoordinate FOR Maps UsedInStyles, SET [0:?]OF IfcSurfaceStyleWithTextures FOR Textures; END_ENTITY
文本样式 (IfcTextStyle)	ENTITY IfcTextStyle SUBTYPE OF IfcPresentationStyle; TextCharacterAppearance:OPTIONAL IfcTextStyleForDefinedFont; TextStyle:OPTIONAL IfcTextStyleTextMod; TextFontStyle, IfcTextFontSelect; ModeXOrDraughting:OPTIONAL BOOLEAN; END_ENTITY
文本样式字体模型 (IfcTextStyleFontMod)	ENTITTY IfcTextStyleFontMod SUBTYPE OF IfcPreDefinedTextFont; FontFamily:LIST[1:?]OF IfcTextFontName; FontStyle:OPTIONAL IfcFontStyle; FontVariant:OPTIONAL IfcFontVariant; FontWeight:OPTIONAL IfcFontWeight; FontSize:IfcSizeSelect; WHERE MeasureOfFontSize, (IFCMEASURERESOURCE.IFCLENGTHMEASURE IN TYPHOFF(SF).FontSize) AND (SELF.FontSize >0.); FNNENTTY
定义字体文本样式 (IfcTextStyleForDefinedFont)	ENTITY IfcTextStyleForDefinedFont SUBTYPE OF IfcPresentationItem; Colour:IfcColour BackgroundColour:OPTIONAL IfcColour; END_ENTITY
文本样式文本模型 (IfcTextStyleTextMod)	ENTITTY IfcTextStyleTextMod SUBTYPE OF IfcPresentationItem; TextIndent:OPTIONAL IfcSizeSelect; TextAlign:OPTIONAL IfcTextAlign; TextDecoration:OPTIONAL IfcTextDecorations; LetterSpacing:OPTIONAL IfcSizeSelect; WordSpacing, OPTIONAL IfcSizeSelect Text Transform:OPTIONAL IfcTextTransformation; LineHeight:OPTIONAL IfcSizeSelect; END_ENTITY
纹理坐标 (IfcTextureCoordinate)	ENTITY IfcTextureCoordinate ABSTRACT SUPERTYPE OF (ONEOF (IfcIndexedTextureMap, IfcTextureCoordinateGenerator, IfcTextureMap)) SUBTYPE OF IfcPresentationItem; Msp:LIST[1:?]OF IfcSurfaceTexture; END_ENTITY

续表D.12.2

实体	EXPRESS描述
纹理坐标生成器 (IfeTextureCoordinateGenerator)	ENTTTY IfcTextureCoordinateGenerator SUBTYPE OF IKcTextureCoondnate; Mode:Ifelabel; Parameter,OPTIONAL LIST [1:?]OF H-Real; END_ENTITY
纹理映射 (IkeTextureMap)	ENTITY IfkTextureMap SUBTYPE OF IKETextureCoordnute; Vertices:LIST [3:?]OF IfeTextureVertex; MappedTo,HcFace; END_ENTITY
纹理顶点 (IfeTextureVertex)	ENTITY IfeTextureVertex SUBTYPE OF IfPresentationItem; Coordinstes:LIST[2:2]OF IfcParameterValue END_ENTITY
纹理顶点列表 (HeTextureVertexlist)	ENTTTY IKEteatureVertexList SUBTYPE OF IfcPresentationItem; TexCoordsList:LIST [1:?]OF LIST [2:1]OF IfcParameterValue; END_ENTITY

D. 12. 3 展示外观资源应采用正确填充样式 (IfeConectFillAreaSxyk) 函数, 函数的 EXPRESS 描述应符合下列规定:

```

FUNCTION IfeCorrectFillAreaStyle
  (Styles:SET[1:?]OF IfeFillStyleSelect)
  ;LOGICAL;
LOCAL
  Hatching:INTEGER:=0;
  Tiles :INTEGER:=0;
  Colour ;INTEGER:=0;
  External:INTEGER:=0;
END_LOCAL;
External :=SIZEOF(QUERY(Style<*Styles
  "IFCPRESENTATIONAPPEARANCERESOURCE.IFCEXTERNALLYDEFINEDHATCH
  STYLE'IN
  TYPEOF(Style)));
Hatching :=SIZEOF(QUERY(Style<*Syles |
  'IFCPRESENTATIONAPPEARANCERESOURCE.IFCFILLAREASTYLEHATCHING IN
  TYPEOF(Style)));
Tiles :=SIZEOF(QUERY(Style<*Styles |
  "IFCPRESENTATIONAPPEARANCERESOURCE.IFCFILLAREASTYLETILES'IN
  TYPEOF(Style)));
Colour :=SIZEOF(QUERY(Style<*Siyles |
  'IFCPRESENTATIONAPPEARANCERESOURCE.IFCCOLOUR'IN
  TYPEOF(Style)));
IF(External >1)THEN
  RETURN(FALSE);
END IF;
IF((External =1)AND((Hatching >0)OR(Tiles >0)OR(Colour>0)))THEN
  RETURN(FALSE);
END IF;
IF(Colour>1)THEN
  
```

```

RETURN(FALSE);
END IF1
IF((Hatching>0)AND(Tiles >0))THCN
RETURN(FALSE);
END_IF;
RETURN(TRUE);
END_FUNCTION

```

D.13 展示定义资源

D.13.1 展示定义资源类型的 EXPRESS 描述应安表 D.13.1 的规定采用。

表 D.13.1 展示定义资源类型的 EXPRESS 描述

类型	EXPRESS描述
框对齐 (IfcBoxAlignment)	<pre> TYPE IfcBoxAlignment =1idl.abel; WHERE WRI;SELF IN [top-lkft,'top-middle',top-right,'micelle-left','center','middle righa','bottom-left,"boetomn ide.'bottomr rngh] END_TYPE </pre>
文本路径枚举 (IfcTextPath)	<pre> TYPE IfcTextPath =ENUMERAIONOF (LEFT, RIGHT, UP, DOWN); END_TYPE </pre>

D.13.2 展示定义资源实体的 EXPRESS 描述应安表 D.13.2 的规定采用。

表 D.13.2 展示定义资源实体的 EXPRESS 描述

实体	EXPRESS描述
填充区域注释 (IfcAnnotationFillArea)	<pre> ENTITY IfcAnnotationFillArea SUBTYPE OF IfcGeometricRepresentationItem; OuterBoundary:IfcCurve; IroerDoundanes:OFTDONAL SET [I::]OF IfcCurve; END_ENTTY </pre>
平面框 (IfcPlanarBox)	<pre> ENTITY IfcPlanarBox SUBTYPE OF IfcPlanarExtent; Placement:IfcAxis2Placement; END_ENTITY </pre>
平面范围 (IfcPlanarExtent)	<pre> ENTTY IfcPlanarExtent SUPERTYPE OF(IfcPlanarBox) SUBTYPE OF IfcGeometricRepresentationItem; SueInX:Ifedl engthMeasure; SieeInY:IfeLangthMeasure; END_ENTITY </pre>
表达项 (IfcPresentationItem)	<pre> ENTITY IfcPresentationItem ABSTRACT SUPERTYPE OF(ONEOFHeCoburRgblList, IfeColourSpecifiieation, HeCurveSryleFont, IfeC urveStylkFontAndScaling, HeCurveSeylefomtPatten, licIndexrdColourMap, IfcPreDefinedItem, IfeSurfaceSt yklighting, feSurfaceSryleRefnction, TeSurfaceSryleShading, IfeSurfaceSeyleWithTextures, IfeSurface Teat ure, feTextSryleForDefinedFont, IfeTextStyleTextModel, IleTextureCoordinate, IfeTextureVertex, IfcText ureVertexList)); END_ENTTV </pre>

续表D.13.2

实体	EXPRFSS描述
文本文字 (HeTextLiteral)	ENTTTY HeTextl iterall SUPERTYPE OF(IfeTextlitenlWithExtem) SUBTYPE OF IfcGeometricRepresentationItem; Literal;fcPresentableText; Placement :HcAxis2Placement; Path:feTextPath; END_ENTITY
带范围文本文字 (HeTextLitalWith Extent)	ENTTTY HeTextLitenlWithExtent SUBTYPE OF IfeTextLiteral; Extent:fcPlanarExtmt; Box.Aligement :feBosAlignment; WHERE WR31:NOTC' IFCPRESENTATIONDEFINITIONRESOLRCE. IFCPLANARHOX IN TYPEOF(Extent)) END_ENTITY

D.14 展示组织资源

D.14.1 展示组织资源类型的 EXPRESS描述应按表D.14.1的规定采用,

表D.14.1 展示组织资源类型的 EXPRFSS 描述

类型	EXPRESS描述
光分布曲线枚举 (IfeLigheDistributice CurveEnum)	TYPE IfelightstnbutioCurveEnum =ENIIMFRATION OF (TYPE_A, TYPE_B, TYPE_C, NOTDEFINFD) END_TYPE
发光源枚举 (IfeLigheEmissioe SourceEnum)	TYPE Ifd.ightEmissionScureeEnum -ENUMERATION OF(COMPACTFLUORESCENT, FLUORESCENT. HIGHPRESSUREMFRCTIY. HIGHPRFSSURFSODIUM, LIGHTEMTTINGDTODE. LOWPRESSURESODIUM, LOWVOLTAGEHALOGEN, MAINVOLTAGEHALOGEN, METALHALIDE, TUNGSTENFILAMENT. NOTDEFINFD); END_TYPE
分层项选择 (IfelayeredItem)	TYPE IfdLayeredItem=SELECT(IfkRepresentationItem. IfeRepresentatic); END_TYPE
光分布数据资源选择 (IfeLigheDistributicn DntaSoureeSedeet)	TYPE Nd1.ightDXstributionDataSoureeSelect-SELECT(IfeExternalReference. IfeL.ighrIntensityDistributiom); END_TYPE

D.14.2 展示组织资源实体的 EXPRESS描述应按表D.14.2的规定采用。

表 D. 14. 2 展示组织资源实体的 EXPRESS 描述

实体	EXPRESS 描述
光分布数据 (Ifel ightstnribution Dhta)	ENTTY HfcLightDistributionData; MainPlaneArgle :HiePlaneAngleMeasur; SecondaryPlaneAngle:LIST [1:?]OF NePlaneAngleMessure; LumirousIntnsity:LIST [1:?]OF IfcLuminousIntnsityDAsnributionMeasure, END_ENTITY
光强分布 (Ifel ightIntnsity Distribution)	ENTITY IcLightIntnsityDistnbution; LightDistributioeCarve:HelightDistributioeCarveEaum DistributionDhte:LIST [1:?]OF Hel ightDstrihuticData; END_ENTITY
光源 (Ifel ightSource)	ENTITY Ifcl ightSource ABSTRACT SUPERTYPE OF (ONEOF:HcLightSourceAmbient,HcligheSourceArectional, IfeLightSource Goscmetne, lKel ightSourcePositional) SUBTYPE OF HeGeometrKRepresentationItem; Name:OPTIONAL. IfeLabel; LigheColour:feColourkgb; AmbientIntensity:OPTIONAL. IfeNorralisedRatioMeasure; Intensity:OPNONAL. HeNormulisedRitioMeasure; END_ENTITY
环境光源 (Ifel ightSource Ambient)	ENTITY fcLightSourceAmbient SUBTYPE OF IfeL ighrSource; END_ENTITY
光源方向 (IfeLightSource Dkreeticnal)	NTITY IfcLightSourceDirectional SUBTYPE OF IfeLigheSource; Orientation, IfcDirection; END_ENTITY
光源几何 (IfeLightSource Gonicmetrie)	ENTITY HfeLightSourceGoniometrie SLBTYPE OF feLigheSouree; Position:IfcAxis2Placement3D; ColourAppearance, OPTIONAL HcCokurRgb; Colour Temperature:Ife ThermodynamicTemperatureMeasure; LuminousFlux:IfeLuminousFluxMcasure; LightEmissionSource:IfeLighi EmissionSourceEnum; LaghtLAsnributionLataSource;IcLaghtLstributionDntaSourceSelect; END_ENTITY
光源位置 (IfeLightSource Positicnal)	ENTITY Hel ightSourcePositioeal SUPERTYPE OF (IfeLigheSoureeSpot) SUBTYPE OF IcLigheScurce; Position:IfeCartesian Point; Radius, HfcPositiveLengthMeasure; ConstantAttensation, fcReal; DistanceArtenustice :IfeReal; QuadricAttenuation, IfcReal; END_ENTITY
光源点 (IfeLightSource Spot)	ENTITY HelightSoureeSpot SUBTYPE OF HeligheSoureePositiceal; Orentation:IfeDirections ConcentrationExponent :OPTIONAL IfcReal; SpreadAngle, HcPositivePlaneAngleMesure; BeamWidthAngle:IfePositivePaneAngleMeasure; END_ENTITY

续表D.14.2

类型	EXPRESS描述
展示层分配 (IfcPresentationLayerAssignment)	<pre> ENTITY IfcPresentationLayerAssignment SUPERTYPE OF (IfcPresentationLayerWithStyle) Name: IfcLabel Description; OPTIONAL. IfcText; AssignedItems: SET[1:?] OF IfcLayeredItem; Identifier: OPTIONAL. IfcIdentifier; WHERE ApplicableItems; STZHOFF (QUERY (temp < AssignedItems (SIZEOF (TYPEOF (temp) • [IFCRepresentationResource, IfcShapeRepresentation, IfcGeometryResource, IfcGeometricRepresentationItem, IfcGeometryResource, IfcMappedItem]) = 1))) = SIZEOF (AssignedItems), END ENTITY </pre>
带样式展示层 (IfcPresentationLayerWithStyle)	<pre> ENTITY IfcPresentationLayerWithStyle SUBTYPE OF IfcPresentationLayerAssignment; LayerOn: LOGICAL; LayerFront: LOGICAL; LayerBack: LOGICAL; LayerStyles: SET OF IfcPresentationStyle; WHERE ApplicableOnlyToItems: SIZEOF (QUERY (temp < AssignedItems (SIZEOF (TYPEOF (temp) • [IfcGeometryResource, IfcGeometricRepresentationItem, IfcGeometryResource, IfcMappedItem]) = 1))) = SIZEOF (AssignedItems) END ENTITY </pre>

D.15 截面资源

D.15.1 截面资源类型的 EXPRESS 描述应按表D.15.1 的规定采用。

表D.15.1截面资源类型的EXPRESS描述

类型	EXPRESS描述
截面类型枚举 (IfcProfileTypeEnum)	<pre> TYPE IfcProfileTypeEnum = ENUMERATION OF (CURVE, AREA); END_TYPE </pre>
钢筋角色枚举 (IfcReinforcingBarRoleEnum)	<pre> TYPE IfcReinforcingBarRoleEnum = ENUMERATION OF (MAIN, SHEAR, LIGATURE, STUD, PUNCHING, EDGE, RING, ANCHORING, USERDEFINED, NOTDEFINED); END_TYPE </pre>
钢筋表面枚举 (IfcReinforcingBarSurfaceEnum)	<pre> TYPE IfcReinforcingBarSurfaceEnum = ENUMERATION OF (PLAIN, TEXTURED); END_TYPE </pre>
截面类型枚举 (IfcSectionTypeEnum)	<pre> TYPE IfcSectionTypeEnum = ENUMERATION OF (UNIFORM, TAPERED); END_TYPE </pre>

D.15.2 截面资源实体的EXPRESS 描述应按表D.15.2 的规定采用。

表 D. 15. 2 截面资源实体的EXPRESS 描述

实体	EXPRESS描述
任意封闭截面定义 (HcArbitraryClosedProfileDef)	<pre> ENTITY HcArbitraryClosedProfileDd SLPERTYPE OF (feArbitraryProfileDeWithVoids) SUBTYPE OF feProfileDef; OuterCurve, IfcCurver WHERE WR1:OuterCurve.Dim=2; WR2:NOTCIFCGEOMETRYRESOURCE. IFCLINE IN TYPEOF(OuterCurve)); WR3:NOTCIFCGEOMETRYRESOLRCE IFCOFFSETCURVE2C' IN TYPEOF(OuterCurve)); END_ENTITY </pre>
任意开放截面定义 (HeArbitraryOpenProfileDef)	<pre> ENTITY IfcArbitraryOpenProfileDef SUPERTYPE OF (IfcCmterLinePrufikD:D SUBTYPE OF HcProfileDef, Curve:HfeBoundedCurve; WHERE WR11;' IFCPROFILERESOURCE. IFCCENTERLINEPROFILEDEF' IN TYPEOF (SELF))OR(SELF\Ik ProfileDef.Profile Type =fcProfile TypeEnum. CURVE); WR12:Curve.Dim -2; END_ENTITY </pre>
任意带洞截面定义 (IfcArbitraryProfileDefWithVoids)	<pre> ENTITY HcArbitraryProfileDefWithVoids SUBTYPE OF IfcArbitraryClosedProfilebdf; InnerCurves.SET [1..?]OF feCurve; WHERE WR1:SELF\HeProfileDef.ProfileType=AREA; WR2,SIZEOF(QUERY(temp<• InnerCurves temp.Dim<>2))-0; WR3;SLZEOF(QUERY(temp<• ImerCurves I' IFCGEOMETRYRESOURCE IFCLINE IN TYPEOF (temp)))=0; END_ENTITY </pre>
非对称工形截面定义 (HfeAsymmetrielShapeProfileDef)	<pre> ENTITY HcAsymmetricI1ShapeProfileDel SUBTYPE OF HcParameterizedProfileDd; BottomFlangeWidth:IfcPositiveLengthMeasure; Oneml1Dxpth:HfePositiveLengthMeasure; WebThickness,licPositiveLengthMeasrer BottomFlange Thickness:IfcPositiveLengthMeasure; BottomFlangeFilletRadius:OPTIONAL. HfeNemNegativeLingthMeasure; TopFlangeWidth:IfePositiveLengthMeisure; TopFlange Thickness:OPTIONAL. IfePositiveLengthMeasurer TopFlangeFilletRadius:OPTIONAL. HeNonNegativeLengthMeasure; BottomFlangeEdgeRadius:OPTIONAL. HeNon NegativeLengthMeasure; Douullaugs9ogelOf-T10*AL IfrimeAngleMeasure, TopFlangeEdgeRadius:OPTIONAL. MeNonNegativeLengthMeasure; TopFlangeSoe:OPTIONAL. IfcPlaneAngleMeasurei WHERE ValidFlange Thickness;NOT (EXISTSXTopFlange Thickness))OR((BottomFlange Thickness +TopFlange Thickness)<OverallDepth); ValidWebThickness:(WebThickness<BottomFlangeWidth)AND(WebThickness<TopFlangeWidth); ValidBoetomFilletRadius :(NOT (EXISTS(BottomFlangeFalletRndius)))OR(BottomFlangeFilletRndius< -(BottomFlangeWidth -WebThickness)/2); ValidTopFilletRadius;(NOT (EXISTS(TopFlangeFilletRadus)))OR(TopFlangeFilletRndius <=(TopF angeWidth-WebThickness)/2.); END_ENTITY </pre>
中心线截面定义 (IfcCenterlineProfileDef)	<pre> ENTITY HeCenterLincProflDdf SUBTYPE OF HcArbitraryOpenProfileDef; Thckness:fcPositiveLengrthMeasure; END_ENTTTY </pre>
中空圆形截面定义 (IeCireleHollowProfleDd)	<pre> ENTITY IeCireleHollowProftleDef SUBTYPE OF cCirdeProfileDdf; WallThickness:IfcPositiveLengthMensure; WHERE WR1:WallThickness<SELF\IfeCirdProfileDef. Radius; END ENTITTY </pre>

续表D.15.3

实体	EXPRESS描述
圆截面定义 (IfcCircleProfileDef)	<pre> ENTITY IfcCircleProfileDef SUPERTYPE OF (IfcCircleHollowProfileDH) SUBTYPE OF IfcParameterizedProfileDef: Radius: IfcPositiveLengthMeasure; END_ENTITY </pre>
组合截面定义 (IfcCompositeProfileDef)	<pre> ENTITY IfcCompositeProfileDef SUBTYPE OF IfcProfileDef; Profiles: SET [2..?] OF IfcProfileDef; Label: OPTIONAL IfcText; WHERE InvariantProfileType: SIZEOF (QUERY (temp < . Profiles I temp.ProfileType <> Profiles [1] .ProfileType)) = 0; NoRecursion, SIZEOF (QUERY (temp < . Profiles I' IFCPROFILEDEF ESOURCE. IFCCOMPOSITEPROFILEDEF IN TYPEOF (temp))) = 0; END_ENTITY </pre>
C形截面定义 (IfcCShapeProfileDef)	<pre> ENTITY IfcCShapeProfileDef SUBTYPE OF IfcParameterizedProfileDef: Depth, IfcPositiveLengthMeasure; Width, IfcPositiveLengthMeasure; WallThickness: IfcPositiveLengthMeasure; Girth: IfcPositiveLengthMeasure; InternalFilletRadius: OPTIONAL IfcPositiveLengthMeasure; WHERE ValidGirth; Girth < (Depth/2); ValidInternalFilletRadius: NOT (EXISTS (InternalFilletRadius)) OR ((InternalFilletRadius <= Width/2 - WallThickness) AND (InternalFilletRadius <= Depth/2 - WallThickness)); ValidWallThickness; (WallThickness <= Width/2) AND (WallThickness <= Depth/2); END_ENTITY </pre>
导出截面定义 (IfcDerivedProfileDef)	<pre> ENTITY IfcDerivedProfileDef SUPERTYPE OF (IfcMirrorProfileDef) SUBTYPE OF IfcProfileDef; ParentProfile: IfcProfileDef; Operator: IfcCartesianTransformationOperator2D; Label: OPTIONAL IfcText; WHERE InvariantProfileType; SELF \ IfcProfileDef.ProfileType = ParentProfile.ProfileType END_ENTITY </pre>
椭圆截面定义 (IfcEllipseProfileDef)	<pre> ENTITY IfcEllipseProfileDef SUBTYPE OF IfcParameterizedProfileDef, SemiAxis1: IfcPositiveLengthMeasure; SemiAxis2, IfcPositiveLengthMeasure; END_ENTITY </pre>
工形截面定义 (IfcIShapeProfileDef)	<pre> ENTITY IfcIShapeProfileDef SUBTYPE OF IfcParameterizedProfileDef; OverallWidth: IfcPositiveLengthMeasure; OverallDepth: IfcPositiveLengthMeasure; WebThickness: IfcPositiveLengthMeasure; FlangeThickness: IfcPositiveLengthMeasure; FilletRadius: OPTIONAL IfcPositiveLengthMeasure; FlangeEdgeRadius: OPTIONAL IfcPositiveLengthMeasure; FlangeSlope: OPTIONAL IfcPlaneAngleMeasure; WHERE ValidFlangeThickness; (2 * FlangeThickness) < OverallDepth; ValidWebThickness; WebThickness < OverallWidth; ValidFilletRadius: NOT (EXISTS (FilletRadius)) OR ((FilletRadius <= (OverallWidth - WebThickness) / 2) AND (FilletRadius <= (OverallDepth - (2 * FlangeThickness)) / 2)); END_ENTITY </pre>

续表D. 15. 2

实体	EXPRESS操述
L. 形截面定义 (Iked.ShapeProfileDef)	<pre> ENTITY IfcL.ShapeProfileDef SUBTYPE OF IfcParameterizedProfileDef; Depth:lfePositiveLengthMeasure; Width:OPTIONAL.HcPositiveLengthMeasure; Thickness;lfePositiveLengthMeasure; FilletRadius;OPTIONAL IHCNonNegativeLengthMeasure; EdgeRadius:OPTIONAL lfeNonNegativeLengthMeasure; LegSape:OPTIONAL.K-PlaneAngleMeasure; WHERE ValidThickness;(Thickness <Depth)AND (NOT(EXISTS(Width))OR(Thickness<Width)); END_ENTITY </pre>
镜像截面定义 (IkeMirroredProfileDef)	<pre> ENTITY IfcMirroredProfileDef SUBTYPE OF IfcDerivedProfileDef; DERIVE SEI.F\IfcDerivedProfileDef.Operator;IkCartesianTransformationOperator2D:-IkRepresentationItem() l l lfeGeometricRepresentationItem() KcCartesianTransformationOperator(-Axis1 HcRepresentationItem() 0 l HeGeometricRepresentationItem() HfcDrection([-1.,0.]),-Axis2 HcRepresentationItem() I lfeGeometricRepresentationItem() IfcDrection([0..1.]).-LocalOrigin IfcRepresentationItem() IfcGeometricRepresentationItem() HfcPoint:) lCartesianPoint([0.,0.]),-Scale 1.) McCartesianTransformationOperator2D(); END_ENTITY </pre>
参数化截面定义 (IfcParameterizedProfileDef)	<pre> ENTITY IfcParameterizedProfileDef ABSTRACT SUPERTYPEOF(ONEOF HeAsymmetricIShapeProfileDef,HeCircleProfileDef,HeEllipseProfileDef,HeShapeProfileDef,IfcL.ShapeProfileDef,HeRectangleProfileDef,IfcTShapeProfileDef,fcTrapeziumProfileDef,fcUShapeProfileDef,IfcZShapeProfileDef); SUBTYPE OF HeProfileDef; Position:OPTIONAL.feAxis2Placement2D; END_ENTITY </pre>
截面定义 (HeProfileDef)	<pre> ENTITY IfcProfileDef SUBTYPE OF(ONEOF(IkArbitraryOpenProfileDef,IfcCompositeProfileDef,HeDerivedProfileDef,IfcParameterizedProfileDef)); ProfileType:HfcProfileTypeFnum; ProfileName;OPTIONAL.fcLabel; INVERSE HasExternalReference:SET OF If-ExternalReferenceRelationship FOR RelatedResourceObjects; HasProperties:SET OF lkeProfileProperties FOR ProfileDefinition; END_ENTITY </pre>
截面属性 (IfcProfileProperties)	<pre> ENTITY HeProfileProperties SUBTYPE OF HeExtendedProperties; ProfileDefinition,lfcProfileDef; END_ENTITY </pre>
中空矩形截面定义 (HeRectangleHollowProfileDef)	<pre> ENTITY HeRectangleHollowProfileDef SUBTYPE OF HeRectangleProfileDef; WallThickness:HePositiveLengthMeasure; InnerFilletRadius:OPTIONAL.lfeNonNegativeLengthMeasure; OuterFilletRadius:OPTIONAL.lfeNonNegativeLengthMeasure; WHERE ValidWallThickness,(WallThickness<(SEI\FfcRectangleProfileDef.DrL.XDAm/2.))AND(WallThickness<(SEI\FfcRectangleProfileDef.YDXm/2.)); ValidInnerRadius:NOT(EXISTS(InnerFilletRadius))OR((InnerFilletRadius<-(SELF\FfcRectangleProfileDef.DXm/2-WallThickness))AND(InnerFilletRadius<-(SELF\FfcRectangleProfileDef.YDm/2-WallThickness))); ValidOuterRadius:NOT(EXISTS(OuterFilletRadius))OR((OuterFilletRadius<=(SELF\FfcRectangleProfileDef.DXm/2.))AND(OuterFilletRadius<-(SELF\FfcRectangleProfileDef.DYm/2.))); END_ENTITY </pre>

续表D. 15. 2

实体	EXPRESS描述
矩形截面定义 (IfcRectangleProfileDef)	<pre> ENTITY IfcRectangleProfileDd SUPERTYPE OF (ONBOF (IfcRectangleHollowProfileDef, IfcRoundedRectangleProfileDef)) SUBTYPE OF IfcParameterizedProfileDef: XDIm, IfcPositiveLengthMeasure; YDm: IfcPositiveLengthMeasure; END_ENTITY </pre>
钢筋属性 (IfcReinforcementBarProperties)	<pre> ENTITY IfcReinforcementBarProperties SUBTYPE OF IfcPredefinedProperties; TotalCrossSectionArea, IfcAreaMeasure; SteelGrade, IfcLabel; BarSurface; OPTIONAL. IfcReinforcingBarSurface; EffectiveDepth; OPTIONAL. IfcLengthMeasure; NominalBarDiameter; OPTIONAL. IfcPositiveLengthMeasure; BarCount; OPTIONAL. IfcCountMeasure; END_ENTITY </pre>
圆角矩形截面定义 (IfcRoundedRectangleProfileDef)	<pre> ENTITY IfcRoundedRectangleProfileDef SUBTYPE OF IfcRectangleProfileDef; RoundingRadius: IfcPositiveLengthMeasure; WHERE ValidRadius : ((RoundingRadius <= (SELF.IfcRectangleProfileDef.XDim/2)) AND (RoundingRadius <= (SELF.IfcRectangleProfileDef.YDim/2))); END_ENTITY </pre>
横截面属性 (IfcSectionProperties)	<pre> ENTITY IfcSectionProperties SUBTYPE OF IfcPredefinedProperties; SectionType: IfcSectionTypeEnum; StartProfile, IfcProfileDef; EndProfile; OPTIONAL. IfcProfileDef; END_ENTITY </pre>
横截面钢筋属性 (IfcSectionReinforcementProperties)	<pre> ENTITY IfcSectionReinforcementProperties SUBTYPE OF IfcPredefinedProperties; LongitudinalStartPosition, IfcLengthMeasure; LongitudinalEndPosition: IfcLengthMeasure; TransversePosition; OPTIONAL. IfcLengthMeasure; ReinforcementRole: IfcReinforcingBarRoleEnum; SectionDefinition; IfcSectionProperties; CrossSectionReinforcementDefinitions, SET[1:?] OF IfcReinforcementBarProperties; END_ENTITY </pre>
梯形截面定义 (IfcTrapeziumProfileDef)	<pre> ENTITY IfcTrapeziumProfileDef SUBTYPE OF IfcParameterizedProfileDef; BottomXDim: IfcPositiveLengthMeasure; TopXDim: IfcPositiveLengthMeasure; YDm: IfcPositiveLengthMeasure; TopXOffset, IfcLengthMeasure; END_ENTITY </pre>
T形截面定义 (IfcTShapeProfileDef)	<pre> ENTITY IfcTShapeProfileDef SUBTYPE OF IfcParameterizedProfileDef; Depth: IfcPositiveLengthMeasure; FlangeWidth: IfcPositiveLengthMeasure; WebThickness: IfcPositiveLengthMeasure; FlangeThickness, IfcPositiveLengthMeasure; FilletRadius; OPTIONAL. IfcNonNegativeLengthMeasure; FlangeEdgeRadius: OPTIONAL. IfcNonNegativeLengthMeasure; WebEdgeRadius: OPTIONAL. IfcNonNegativeLengthMeasure; WebSlope: OPTIONAL. IfcPlaneAngleMeasure; FlangeSlope: OPTIONAL. IfcPlaneAngleMeasure; WHERE ValidFlangeThickness: FlangeThickness < Depth; ValidWebThickness: WebThickness < FlangeWidth; END_ENTITY </pre>

续表D. 15. 2

实体	EXPRESS描述
U形截面定义 (IfcUShapeProfileDef)	<pre> ENTITY IfcUShapeProfileDef SUBTYPE OF IfcParameterizedProfileD; Depth :IfcPositiveLengthMeasure; FlangeWidth:IfcPositiveLengthMeasure; WebThickness :IfcPositiveLengthMeasure; Flange Thickness:IfcPositiveLengthMeasure; FilletRadius;OPTIONAL IfcNonNegativeLengthMeasure; EdgeRadius;OPTIONAL IfcNonNegativeLengthMeasure;; FlangeSlope:OPTIONAL. IfcPlaneAngleMeasure; WHERE ValidFlange Thickness.Flange Thickness<(Depth/2.); ValidWeb Thickness.WebThickness <.FlangeWidth, END ENTITY </pre>
Z形截面定义 (IfcZShapeProfileDef)	<pre> ENTITY IfcZShapeProfileDef SUBTYPE OF IfcParameterizedProfileD; Depth:IfcPositiveLengthMeasure; FlangeWidth :IfcPositiveLengthMeasure; Web Thickness:IfcPositiveLengthMeasure; Flange Thickness:IfcPositiveLengthMeasure; FilletRadius;OPTIONAL. IfcNon NegativeLengthMeasure; EdgeRadius:OPTIONAL. IfcNon NegativeLengthMeasure; WHERE ValidFlange Thickness,Flange Thickness<(Depth/2), END_ENTITY </pre>

D. 16 属性资源

D. 16. 1 属性资源类型的 EXPRESS描述应按表D. 16. 1的规定采用。

表 D. 16. 1 属性资源类型的 EXPRESS 描述

类型	EXPRESS描述
插值曲线枚举 (IfcCurveInterpolationEnum)	<pre> TYPE IfcCurveInterpolationEnum =ENUMERATION OF (LINEAR, LOG LINEAR, LOG_10G, NOTDEFINED); END_TYPE </pre>
对象引用选择 (IfcObjectReferenceSelect)	<pre> TYPE IfcObjectReferenceSelect =SELECT (IfcMaterialDefinition, IfcPerson, IfcOrganization, IfcPersonAndOrganization, IfcExternalReference, IfcTimeSeries, IfcAddress, IfcAppliedValue, IfcTable); END_TYPE </pre>

D. 16. 2 属性资源实体的 EXPRESS 描述应按表D. 16. 2 的规定采用。

表 D. 16. 2 属性资源实体的 EXPRESS 描述

实体	EXPRESS描述
复杂属性 (IfcComplexProperty)	<pre> ENTITY IfcComplexProperty SUBTYPE OF IfcProperty: UsageName:IfcIdentifier; HasProperties:SET[1:?]OF IfcProperty; WHERE WR21:SIZEOF(QUFRY (temp< . HasProperties SFIF:=temp))=0; WR22:IfcUniqueProperty Name (HasProperties); END_ENTITY </pre>

续表D. 16. 2

实体	EXPRESS描述
扩展属性 (HcExtenddPrope rties)	ENTITY IfcExtendedProperties ABSTRACT SUPERTYPE OF(ONEOF(IiMaterialProperties, IfcProfileProperties)) SUBTYPE OF IfcPropertyAbstraction; Name;OPTIONAL. HfcIdentifier Description;OPTIONAL. fcText; Properties:SET[1:?]OF IfcProperty; END ENTITY
预定义属性 (HePreDefined Properties)	ENTITY IfcPreDefinedProperties ARSTRACT SUPERTYPE OF(ONEOF(IiReinforementBarProperties. IfeSectionProperties, HfeSectionRe inforcementProperties)) SUBTYPE OF IcPropertyAbstraction: END_ENTITY
属性 (IicProperty)	ENTITY IfcProperty ABSTRACT SUPERTYPE OF(ONFOF(Ii.ComplexProperty, IfeSimpleProperty)) SUBTYPE OF IfkPropertyAbstraction Name:fcIdentifier Description:OPTIONAL. IleText; INVERSE PartOfSet;SET OF fcPropertySet FOR HasPropertiesi PropertyForDependance:SET OF HePropertyDependencyRclationship FOR DependingProperty: PropertyDependsOn:SET OF IfcPropertyLependencyRelationship FOR DependantProperty; PanONComplex:SET OF HeComplexPrope'ty PLK Hast'roperties; END_ENTITY
拍象属性 (fePropertyAbstrs ction)	ENTITY IfePropertyAbstraction ABSTRACT SUPERTYPE OF(ONEOF(IfdExtendedProperties, fcPreDefinedProperties, NeProperty. He PropertyEnumeration)); INVERSE HasExternalReferences:SET OF HcExternlReferenceRelationship FOR RelatedResourceObjcets; END_ENTITY
有界值属性 (IfcPropertyBounded Value)	ENTITY IfcPropertyBoundedValue SUHTYPE OF IfkSmplePropertyi UpperBoundValue:OPTIONAL. MeValue; LowerBoundValue:OPTIONAL. HeValue; Unit :OPTIONAL. IfeUnit; SetPointValue:OPTIONAL. HeValee; WHERE SameUnitUpperLower:NOT (EXISTS (UperBoundValue)) OR NOT (EXISTS (LowerBoundValue)) OR (TYPEOF (UpperBoundValue)=TYPEOF (LowerBoundValue)); mmUiUppu4, NOT (LKIeTD(Ur andValue)) OR NOT (EXISTS (SePoinValue)) OR (TYPEO F (UpperBoundValue)-TYPEOF (SetPoin Value)); SameUnitLowerSet:NOT (EXISTS (LowerBoundValee)) OR NOT (EXISTS (SetPointValee)) OR (TYPBO F (LowerBoundVslue)=TYPPOF (SetPoin:Value)); END_ENTITY
关系依赖属性 (IfcPropertyDepen denyRdationship)	ENTITY IfePropertyDependencyRelationship SUBTYPE OF IKcResourceLevelRelationship; DdependingProperty:IfkProperty; DependantProperty:feProperty; EXPRESSION;OPTIONAL. IfcText; WHERE NoSelfReference, DependingProperty ;<>:DrpendantProperty; END_ENTITY
枚举属性值 (fePropertyEnum eratedValue)	ENTITY IfePropertyEnumeratedValue SUBTYPE OF IKESimpleProperty; EnumerationValoes;OPNONAL LIST [1:?]OF KeValue; EnumerationReferene:OPTIONAL. IfcPropertyEmumerationc; WHERE WR21;NOT (EXISTS (EnumerationRefermee)) OR NOT (EXISTS (EnumeraticmValues)) OR (SLZEOF (QUERY (temp< • EnumerntionValues I xemp IN EnumerationReference. EnumerationValues))-SIZEO F (EmumerationValues)); LNUENTIIY

以上内容仅为本文档的试下载部分，为可阅读页数的一半内容。如要
下载或阅读全文，请访问：<https://d.book118.com/417021135022006>
[111](#)